ATTACHMENT 12

DRW Trading GroupDRW Investments

Wilson, Donald R JR 2013/04/02

4/2/2013 10:04 AM

Full-size Transcript

UNITED STATES OF AMERICA
BEFORE THE
COMMODITY FUTURES TRADING COMMISSION

IN THE MATTER OF:)
)
DRW INVESTMENTS, LLC)

Examination under oath of DONALD R. WILSON, JR., given voluntarily and pursuant to the rules of the U.S. Commodity Futures Trading Commission, reported by Mary Maslowski, a Certified Shorthand Reporter and Notary Public within and for the County of Will and State of Illinois, at 525 West Monroe Street, Suite 1100, Chicago, Illinois, commencing at the hour of 10:04 o'clock on April 2, 2013.

A P P E A R A N C E S:

MR. A. DANIEL ULLMAN, II, Senior Trial Attorney
MS. SOPHIA SIDDIQUI, Trial Attorney
U.S. COMMODITY FUTURES TRADING COMMISSION
Division of Enforcement
1155 21st Street, N.W.
Washington, DC 20581
(202) 418-5420
(202) 418-6774
dullman@cftc.gov
ssiddiqui@cftc.gov

On behalf of the U.S. Commodity Futures Trading Commission;

KATTEN MUCHIN ROSENMAN, LLP
BY MR. TED S. HELWIG,
525 West Monroe Street
Chicago, Illinois 60661-3693
(312) 902-5537

On behalf of DRW Investments, LLC, and the Witness.

A L S O P R E S E N T:

Ms. Patricia Levy, General Counsel DRW
Mr. Rob Armour, Chief Compliance Officer DRW

CSR License No. 084-003278.

I N D E X

WITNESS	EXAMINATION
DONALD R. WILSON, JR.	
By Mr. Ullman	4

E X H I B I T S

DEPOSITION EXHIBIT	MARKED FOR ID
No. 1	4
No. 2	15
No. 3	67
No. 4	73
No. 5	77
No. 6	78
No. 7	84
No. 8	85
No. 9	91
No. 10	97
No. 11	98
No. 12	100
No. 13	101

(Whereupon Exhibit No. 1 was marked
for identification, MM, prior to the
commencement of the examination.)

DONALD R. WILSON, JR.,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

EXAMINATION

BY MR. ULLMAN:

Q Can you state your name for the record, please.
A Donald Ray Wilson, Junior.
Q And your business address?
A 540 West Madison.
Q Good morning. I'm Dan Ullman from the Enforcement Division of the CFTC. We just met.

MR. ULLMAN: Let's have counsel and other participants in the room identify themselves for the record, please.

MR. HELWIG: Sure. Ted Helwig from Katten Muchin Rosenman, LLP.

MS. LEVY: Pat Levy, general counsel for DRW.

MR. ARMOUR: Robert Armour, chief compliance officer for DRW.

MS. SIDDIQUI: Sophia Siddiqui from the Commodity Futures Trading Commission.

MR. ULLMAN: Thank you.

Q Before we get started, I want to go through a few ground rules to hopefully make this go as quickly as possible. The first is we have a court reporter here. Your testimony is being transcribed, so it's important that you answer orally. Do you understand that instruction?

A Yes.

Q Second of all, she cannot -- the court reporter cannot transcribe us talking over each other. So if you would, please wait until I finish my question and I'll wait until you finish your answer. Do you understand that instruction?

A Yes.

Q It's my job to give you a question that you can understand. If you don't understand it, please let me know. Will you do that if you don't understand a question I pose to you?

A Yes.

Q We can take breaks anytime you want. The only restriction I would request is that if there's a question pending, I would request that a

break doesn't happen at that point. Do you understand that instruction?
A Yes.
Q Please look at what's been marked as Exhibit 1.
A (Witness complies).
Q Have you seen this document before?
A Yes.
Q You understand that you're here today pursuant to a subpoena to give investigative testimony?
A Yes.
Q From time to time your counsel may object to questions. Unless he instructs you to not answer, you'll be expected to answer the question. Do you understand that instruction?
A Yes.
Q If you refuse to answer a question, you must explain why you refuse. Do you understand that instruction?
A Yes.
Q At the conclusion of testimony you'll be given the opportunity to make any further statement you wish regarding the subject matter of

this testimony. Do you understand that instruction?

A Yes.

Q Are you aware of any reason today that you cannot give full and complete answers in your testimony?

A No.

Q Are you taking any medication that would affect your ability to testify?

A No.

Q In the back of Exhibit 1, please look at it. About halfway through there's a document attached to it called Statement to Persons Providing Information about Themselves to the Commodity Futures Trading Commission.

A Yes.

Q Do you see that part of Exhibit 1?

A Yes.

Q Have you had a chance to review -- without any attorney/client conversations -- have you had an opportunity to review the Statement to Persons with counsel?

A Yes.

Q There's a lot of information, as I'm sure you can glean from the document, but two important things I want to point out to you. One, this is an official federal investigation. Do you understand that?

A Yes.

Q And, second of all, it requires you to tell the truth. Do you understand that?

A Yes.

Q Let's start out by maybe the stupidest question I've ever asked. Are you employed?

A Yes.

Q Who is your employer?

A DRW Holdings, LLC.

Q And what is your position?

A I'm the CEO.

Q And how long have you been the CEO of DRW Holdings?

A Well, in one form or another, since 1992.

Q Is that when DRW Holdings started?

A That's when its predecessor started.

Q What was the name of the predecessor corporation to DRW Holdings, LLC?

A DRW Trading, Inc.

Q Does that corporation still exist?

A Yes.

Q Any other iterations of DRW Holdings, LLC?

A I think we might have had DRW Investments, LLC, before. I don't remember exactly.

Q Do you remember if DRW Investments, LLC, still exists as a corporate entity?

A It does, yes.

Q Are there any other iterations of DRW that you haven't listed?

A I mean, there are lots of other DRW related entities.

Q Do you know what the International Derivatives Clearing Group is?

A Yes.

Q Can you state for the record what it is.

A Well, the full name is -- well, you just said it, but I know it as IDCG and it is both a DCO as well as a DCM. I believe that the DCO has been purchased by LCH SwapClear, and I'm not sure what's happened to the DCM. I assume it's still owned by NASDAQ.

Q And just so the record's clear, what do you mean by DCO?

A The clearinghouse.

Q And what do you mean by DCM?

A Essentially the futures exchange.

Q Relative to the DCO, are you aware that the name of that specific corporate entity was International Derivatives Clearinghouse?

A Sounds right.

Q It's not a quiz. Just for purposes of clarity, I'm going to just refer to it generally as IDCG throughout this testimony. You'll understand that I'm meaning that collectively, both the DCO and the DCM?

A Yes.

Q What corporate -- DRW corporate entity interfaced with IDCH?

A Well, trades that we did, that were cleared at IDCH were done through DRW Investments, LLC, which is a wholly owned subsidiary of DRW Holdings, LLC.

Q Any other part of DRW, any other corporate entity of DRW interface with IDCH?

A I don't believe so.

Q For purposes of this testimony I'm going to refer to DRW Investments, LLC, as DRW. Do you understand that, sir?

A Yes.

Q And you'll know what I mean if I say DRW?
A Yes.
Q What are your -- are you also the CEO of DRW Investments, LLC?
A Yes. Technically I'm the manager since they're LLCs, but yes.
Q What are your job duties as manager of DRW?
A To generally oversee the business.
Q And by "oversee business," what do you mean more specifically?
A I mean, you know, generally kind of set objectives and try to encourage people to do things, which -- you know, to do things which achieve our objectives.
Q How many employees work for DRW?
MR. HELWIG: And by that you want to focus on the LLC, the Investments, LLC?
MR. ULLMAN: Yeah. For clarity purposes, I'm going to call it DRW Investments. I think that will make it easier, as opposed to DRW.
Q How many employees are there specifically of DRW Investments?
A So technically I think there are none. The employees are actually all housed at -- well,

not all of them, but most of them at DRW Holdings.

Q How many employees for DRW Holdings?

MR. HELWIG: Best estimate is fine.

A Yeah. I mean, Holdings, including all its subsidiaries, it's just over 500.

BY MR. ULLMAN:

Q And how many of those 500 employees do work relating to DRW Investments?

A I would say a majority.

Q Before you testified that you encourage employees to achieve objectives. Again, maybe a silly question, but what is DRW Investments' objective?

A Well, DRW is a proprietary trading firm. As such we provide liquidity in financial markets and look for trading opportunities to put on trades that we think have positive expected value. We use the firm's capital to trade. We don't have any outside investors or customers.

Q Were any of the DRW entities ever registered with the National Futures Association?

A Yes.

Q Which entity?

A You know, there's probably more than one.

I'm pretty sure that Investments was at one time, and may still be, but I'm not sure.

Q For the majority of the testimony I want to limit it to one or two things. The first is the time frame, okay? I am mostly interested in 2010 to the end of 2011, okay? So if I don't offer any other type of time constraint, that's what I'm asking about, that time period. Do you understand that?

A Yes.

Q Second, I'm interested in DRW's trading on the IDCH, through IDCH listed products, okay?

A Yes.

Q So this next series of questions you can assume it's within that time frame and with the IDCH listed products. Do you understand that?

A Yes.

Q How many traders did DRW employ during that time frame that worked on IDCH listed products?

A Just a few.

Q Do you remember their names?

A Craig Silberberg, Brian Vander -- I don't know. Let's just call him Vander.

Q Brian Vander Luitgaren, does that sound familiar?

A Yes.

Q Okay.

A Barry Mendeloff. I don't know of any -- there may have been others involved, but those are the ones that I recall.

Q Do you remember their job titles or are any of those considered managers?

A Well, Craig Silberberg oversees them and, yeah, so he's more senior to those two.

Q And "those two" would be Vander Luitgaren and Mendeloff?

A Yes.

Q During this time period what was your role in trading conduct with Craig Silberberg?

A Related to the IDCH products?

Q Yes. Relative to the IDCH products during this time frame, did you have any oversight responsibilities for these three employees' trading on the IDCH?

A I mean, ultimately I have oversight over everything, and I was certainly involved and aware of their trading on IDCH.

MR. ULLMAN: Let's mark this as Exhibit 2,

please. Just one note about the exhibits.
We need to get all of them back at the end.
(Whereupon Exhibit No. 2 was
marked for identification, MM.)
Q I'm handing you what's been marked as Exhibit 2. On the bottom it's Bates labeled IDCG 00014066. Take a second and look through it and I just have a few questions for you.
A (Witness complies).
Q Have you seen Exhibit 2 before?
A No.
Q If you could flip to page ending in 69. I believe it's four pages in on the top.
A (Witness complies).
Q Now, at some point in 2010 did DRW establish open positions on IDCH listed products?
A Yes.
Q And is the name -- am I correct that the name of the instrument that DRW created open positions on was called the IDEX USD 3-month interest rate swap futures contract?
A Sounds right.
Q I'll represent to you that it is, and I'll refer to that as the 3-month contract. Do you

understand that?

A Yes.

Q Tell me your involvement in establishing these positions.

A Well, in the summer of 2010 I was working with the Eris Exchange to develop an interest rate swap futures contract. Now, at the time IDCG existed. We hadn't really spent much time looking at it. But as we delved into the challenges that come up when developing an interest rate swap futures contract that works in the way that Eris wanted it to work, we studied what IDCG had done and looked at the way that people were quoting the IDCG contracts. And we came to the conclusion that, you know, that at least we thought that there was positive expected value in paying fixed on IDCG contracts if we could, if we were able to near where the equivalent OTC swaps were trading. So we -- I worked with Craig Silberberg and Vander and Barry to construct a portfolio that was -- you know, in which we paid fixed on IDCG and then hedged it with other products.

Q A few questions based on that. Is DRW or any DRW entity an owner of the Eris

Exchange?
A Yes.
Q And can you tell me the specific DRW entity that's an owner of the Eris Exchange?
A I don't recall.
Q And what percentage of the Eris Exchange is owned by DRW?
A I don't know. More than 25 percent I think but less than half.
Q And am I right that -- was DRW an original investor in the Eris Exchange?
A Yes.
Q And when was the Eris Exchange established?
A 2010.
Q 2010. Do you remember around what month?
A I don't. First half.
Q Before DRW established these open positions on it?
A Yes.
Q Am I correct that these open positions were, I believe the nomenclature is swapdropped?
A I don't recall.
Q Do you have any recollection about whether these were originally bilaterally negotiated?

A Oh, I see.
Q Yeah.
A Yeah, these were done -- I thought of them as similar to EFS transactions on ClearPort, so these were done using a similar construct.
Q And just so the record's clear, what's EFS?
A Exchange for swap or exchange of future for a swap.
Q Thank you. Did you have anything to do with the original negotiation of the swap before it was converted to these open future positions?
A Not really. I mean, I was involved in coming up with the overall trading strategy. I wasn't necessarily involved with every trade that was done.
Q Do you know who Marcus Katz is?
A Yes.
Q Who is he?
A He's a broker at -- or he was at the time a broker at NewEdge.
Q And what's NewEdge's relationship with DRW?
A NewEdge is one of our clearing firms.
Q And am I correct that during the relevant period, 2010 to 2011, that NewEdge was the

FCM for DRW's trades on the IDCH?

A Yes.

Q Did Marcus Katz help broker these original swap agreements that were converted into futures positions that we're referring to as the open IDCH positions?

A Yes, Marcus Katz was a significant promoter of IDCH contracts.

Q And I think you testified before that you were responsible for the overall IDCH strategy but you weren't involved in negotiations of each one of these swap agreements, is that correct?

A That's correct.

Q Who was the point person for DRW that was involved with negotiating?

A Barry and Vander were the traders who were involved in the negotiation of the individual trades.

Q During the relevant period did Silberberg report directly to you?

A I don't recall because he at one time was not a partner and then was promoted to partner. So -- and I don't remember exactly when that took place.

Q Do you know the year?
A Sometime around then, but I don't remember.
Q And what's the significance of becoming a partner in terms of reporting to you?
A I mean, the partners generally have a more direct, you know, direct line of reporting to me as opposed to nonpartners for the most part. I mean, there are a couple that report to me, but most of them report to one of the other partners.
Q During the relevant time period did Vander Luitgaren report to you?
A No.
Q Who did he report to?
A To Craig.
Q Oh, Craig. And what about Mendeloff?
A Same.
Q Before Craig was made partner, who did he report to?
A Kevin Kroeger.
Q How do you spell his name, please.
A K-r-o-e-g-e-r.
Q I believe you testified earlier -- and I don't want to put words in your mouth, but I want to make sure I'm clear on this point -- that during

the relevant period you were aware of the traders' activity on IDCH products, is that correct?

A I was generally aware of their activity.

Q And can you describe what their activity was in 2010 to 2011?

A Well, as I said earlier, they were attempting to pay fixed in IDCG contracts and hedge them with other products.

Q And let me see if I can understand this. We established that there were these open positions that DRW created in IDCH, is that correct?

A Yes.

Q And how were those hedged?

A Either with OTC swaps -- I think primarily with OTC swaps, you know. Perhaps also with futures products.

Q Do you know what types of futures products?

A I mean, interest rate futures products, so it could have been Eurodollars or Treasury futures.

Q During the relevant period are you aware that the -- I'll just call them the IDCH traders. Let's just back up for a second. When I talk about the IDCH traders, I'm referring to Luitgaren, Silberberg and Mendeloff, okay?

A Okay.

Q During the relevant period, were you aware of the IDCH traders putting up bids on IDCH listed contracts?

A Yes.

Q Tell me what you know about that.

A Well, initially when we put the trades on we started off paying, you know, maybe a basis point higher yield than the equivalent OTC swaps were trading at the time. And eventually we, you know, tried to pay two basis points over and then we bid three basis points over. And we got bids -- you know, I've forgotten exactly how many trades we did over the course of this, but I'm pretty sure all the trades were brokered by Marcus Katz.

And so, you know, eventually we were bidding three, four, five basis points over because we thought that we had positive expected value in doing so. And nobody wanted to sell us more -- you know, to trade with us more at that level, yet the exchange settlement prices did not reflect the bids that we were showing through brokers, through Marcus Katz, even though the exchange was very well aware of our trading activity and the fact that we were willing to pay higher yields than the corresponding OTC swap curve.

Now, I spent years standing in the Eurodollar option pit on the settlement committee and spent lots of time thinking about the process by which the exchange settles contracts, and it's my belief that contracts should be settled at prices that reflect the current bids and offers in the market in order to as best as possible reflect the current market values of the contracts.

IDCG was failing to do that. I had several discussions with senior management at IDCG about their failure to reflect what were clearly market prices and their failure to reflect what was clearly, you know, a divergent value between the IDCG contracts and similar duration OTC interest rate swaps. Initially IDCG told me that they needed to get permission from the CFTC and from the clearing members to change the settlement process in order to settle things at prices that reflected prices in the broker market. Now, that doesn't make any sense to me because obviously an exchange should be required to settle things at prices that reflect the current market price.

Eventually the exchange said to us, well, why don't you just disseminate prices on our electronic platform because our rules are very clear that any prices that are disseminated on our electronic platform must be reflected in our settlement prices. The exchange also gave us information about what third-party vendors had written to their electronic platform to facilitate the process of us putting quotes up on the platform.

Again, because I've spent many years thinking about settlement prices and processes and in order to avoid any indication or any, you know, suggestion that we were merely putting prices in on the close in order to influence settlement prices, we disseminated prices throughout the day in a variety of points on the IDCG curve. And, now, keep in mind this is a manual process so we had to manually adjust these prices. But, you know, we would kind of move them around as the market moved around. You know, if the market became really volatile, maybe we'd pull them down just because we couldn't keep up with the price changes. And then during certain points of the day we would actually input more points on the curve so that IDCG's swap curve, settlement curve didn't have a bunch of weird kinks in it. So I was aware of all that and certainly involved in discussing with the traders how we were putting those prices in and moving them around.

Q A few threshold questions based on that response. I want to make sure I understand this properly. During the relevant period IDCH, there's actually two ways to get a futures position. One way would be this swapdrop process that I think you testified about before where there is a bilateral -- looks like a traditional vanilla swap that is novated and turned into two corresponding open futures positions where the clearinghouse stands in the middle. Do you agree that that's one way that you can --

A Yes.

Q The second way is sort of just traditional bids and offers on futures products that are listed every day by IDCH. Is that your understanding as well?

A Yes.

Q What people -- who did you speak with at IDCH about the daily settlement price that you discussed before?

A Well, we were mostly speaking with Garry -- I can't think of Garry's last name.

Q O'Connor?

A Right, Garry O'Connor. And some of the discussions Alan Sobba was involved in, but primarily Garry O'Connor.

Q And do you remember when these discussions occurred?

A Well, they started in late 2010 and may have continued into early 2011 but around that window.

Q And the bidding that you were describing before has to do with sort of the second category that we're talking about, these daily available futures contracts on IDCH, is that correct?

A That's correct.

Q And the daily settlement price that you described before was referring to on DRW's open positions, is that correct?

A Well, I wouldn't quite describe it that way. The exchange used the quotes on the screen to come up with their curve, and then they settled all of the aged contracts off of that curve.

So in an indirect manner, yes.

Q Understood. I understand the distinction, okay. In your interactions with the IDCH traders during this time period, did you tell them at what levels they should bid?

A I mean, we had general discussions about how much of a spread to the swap curve, to the OTC swap curve we were bidding.

Q And do you remember those general discussions?

A Generally.

Q Well, was there any specific formula about the number of basis points or timing of the bids?

A I mean, as we were doing these trades, we were, you know, trying to figure out how to model these contracts and value them at the same time. There's a lot of back and forth internally with the quants on, you know, how to value them, model them, hedge them. And the only thing that we agreed on internally was that IDCG contracts should trade at a higher yield because of the convexity bias and the lack of PAI.

But initially, you know, how

much the 10 year should be and how much the 30 year, you know, should the 10 year trade similar to a strip of Eurodollars or not or should it be lower or higher or should the 30 year be, you know, lower than a 10 year or higher than a 10 year, all of this stuff is going on. I mean, we're trying to figure it out.

So initially we were very, you know, started off bidding a basis point over, and then when nobody else wanted to trade with us we bid two basis points over. But we had a really -- a very, you know, very much a lack of clarity internally of what we thought they were worth and how to hedge them. So we were a little bit, you know, somewhat tentative about how we were going about it.

Q Understood.

A I was certainly involved in saying, you know, okay, you know, yeah, you know, fine, let's go up -- you know, I mean, we had general discussions. Okay, fine. Maybe we should go up to three basis points over today, you know.

Q Did you review P&L on these open positions on a daily basis?

A I mean, not necessarily daily but

I certainly had a sense of the portfolio we had on and how the portfolio moved with the market and that kind of stuff.

Q Let's talk about timing of the bids. I think you testified earlier that you instructed the IDCH traders to put up bids all day, is that correct?

A Yes.

Q Is it your understanding as you sit here today that their bids were put in all day?

A Yeah, as I said. But, you know, we pulled them down during volatile periods. But for the most part the bids were up there during the day. I mean, we were happy to trade at those prices. We had no reason to just put the prices in on the close. If somebody wanted to trade with us at 8 o'clock in the morning, that would have been great.

Q Are you aware of the time periods in which the daily settlement price was calculated during the relevant period?

A Yeah. I know that they had some kind of midday or, you know, morning pass where they computed a curve and then they did it again on the close, which I believe was 2 o'clock Chicago time, but I don't remember the details.

Q Did you ever instruct the IDCH traders to put in bids during those daily settlement periods?

A Yes. As I just said, during those daily settlement periods we increased the granularity of the points on the curve on which we put in bids, again, essentially to aid the exchange in coming up with a curve that was reflective of fair value that didn't have weird kinks in it. If we hadn't done that, then they would have used the benchmark points where we had bids, and then where there were no bids they would have used the OTC swap curve. So it would have resulted in a very disjointed curve.

Q In terms of granularity, do you mean specificity of basis points over the OTC curve?

A No, I mean the tails. So, you know, we were -- let's say there's 2 year -- 2, 3, 5, 7, 10, 15, 20, 25, 30-year tails listed and maybe during the day we would just have bids up in -- or prices up in, you know, a couple of those points, maybe 10 year and 30 year or maybe one more. But then during the settlement windows we would put in each of the points that IDCG used to create their curves.

Q And those tended to be longer tails, am I correct on that?

A No. They were in-between tails, in between the points that we otherwise disseminated.

Q What about the volume of bids, did you ever have specific instructions to the IDCH traders about the amount of volume of bids during the daily settlement periods?

A I don't know what you mean by volume.

Q Okay. The number of bids that were being entered.

A So as I just said, obviously there were more bids by definition because we were putting more points on the curve in during those windows, again, to prevent there being a disjointed curve.

Q Okay.

A So if by that you mean volume, then yes, that would be greater volume.

Q Let me tell you why I'm asking it in that way. From our -- you know, just take a typical week in February. There are time periods in which DRW has no bids active. Then sometimes on certain days, during especially the afternoon settlement period, there is a precipitous increase in the number of bids. And as you described -- and I call them tenors, but perhaps that's the wrong word in terms of the tails so the diversity of it is longer. And I just want to make sure that I understand that that is something you directed.

A That's not what I said. My directions were to maintain bids and offers throughout the day and to make sure that we had additional points on the curve during the relevant settlement periods.

Q I appreciate that. I'm not trying to put words in your mouth. I just want to make sure I understand it, okay? Did you ever direct the IDCH traders to put on additional bids during the afternoon daily settlement period?

A No.

Q What about in terms of the diversity of tails, did you ever tell the IDCH traders to put on bids on a greater variety of tails --

A Yeah. As I just said, that is what I directed them to do. In one of our letters to the CFTC, we actually explained what would happen graphically -- and you probably saw the graphs -- if we didn't insert the additional points on the curve.

Q Understood.

A And just to emphasize that, the bids and offers that we had on the screen during the settlement period were prices that we would have been happy to trade at any time during the day and, in fact, were represented in the broker market and for the most part were also up on the screen frequently during the day, as I said, unless, you know, the market was volatile. I mean, I suppose it's possible that at times they didn't put the stuff up during the day, but I know for a fact that we had bids and offers up routinely. And as I said, in any case, we would have been happy to trade at those prices at any time.

Q Understood. Did you ever get a consummated trade on IDCH on these bids?

A On the screen?

Q Sure.

A I don't remember if anybody ever traded with us on the screen.

Q What do you mean by "on the screen"?

A Well, we were submitting these bids electronically.

Q And that started in January of 2011?

A That is correct.
Q What about beforehand when you were using a voice broker I take it from about maybe August 2010 to December 2010, is that --
A Well, we were still using the voice broker after that.
Q Oh, really?
A We were still, you know -- we still let the voice broker know that we were willing to trade at those prices, essentially the same prices that we were putting up on the screen.
Q Did DRW ever put on offers on the IDCH listed contract?
A Yeah, we had two-sided prices up at times.
Q Do you remember when those times were?
A I don't. I don't know.
Q Do you know if it were after DRW started using electronic bids in January 2011?
A Yeah. We certainly weren't giving orders to voice brokers for offers, but on the screen at times we had two-sided prices up, I believe.
MR. ULLMAN: Go off the record for one second.
(Discussion off the record.)

(Whereupon a recess was taken from 10:52 a.m., to 11 a.m., after which the following proceedings were had:)

MR. ULLMAN: Let's get back on the record.

Q Just a few followups from the last section we had. Can you explain to me what positive expected value means?

A Positive expected value means that more than -- you know, that I expect to make money more often than not.

Q I read before, and I think you've mentioned it before in your testimony, that for a time you were actually in the pit trading, is that correct?

A Yes.

Q What did you trade?

A Eurodollar options.

Q And what years were those?

A Well, from 1989 -- October of '89 I went in the Eurodollar option pit, and I was there for the most part through 2005. I spent a couple years in London and, you know, I spent some of the time trading other products, but for the most part that's where I was.

Q And I want to go back to your testimony about voice brokers versus electronic brokers to make sure I understand something. And, again, I'm never trying to put words in your mouth. I just want to make sure I understand this.

Is it your testimony that after -- and we have documents we'll show you, but let's just do it from memory first -- after DRW started putting bids on electronically in January 2011 or so, they were still putting on voice brokers for the IDCH products?

A Yes.

Q And is there any advantage to using the voice broker versus an electronic broker in terms of trying to find someone to hit your bid?

A Well, Marcus Katz, as I said, was very excited about IDCG contracts. And so he -- long before we started trading on IDCG he would call us up and say, hey, guys, let's trade some IDCG, come on, guys, let's trade some IDCG, how about now, are you ready to trade IDCG? And so, you know, he continued to call us and say, hey, what do you want to do on IDCG.

So he -- I mean, and from our

perspective, I mean, other than the fact that, yeah, we're going to pay brokerage if we trade through him and we're not going to pay for brokerage if we trade on the screen, other than that, I mean, you know, we're indifferent. So, I mean, if we like the trade, you know, we don't really care how we trade.

Q And you may not know this. Do you know why Marcus Katz was so interested in IDCG?

A I mean, in general, you know, he -- I think that he thought that this IDCG could be, you know, one of the venues that kind of changes the market structure in traditional OTC swaps and creates an opportunity for NewEdge to enter that market.

Q On to convexity, everyone's favorite topic. Just a little bit of background. We've read your patent application. I have read the different iterations of this white paper that I think some of the employees of DRW drafted. We'll have some specific questions, but I want to talk about it generally. I realize you're an expert on this, so some of these questions may seem -- they're not intended to be patronizing. They're actual basic questions because -- and I'm happy to tell you why

I'm asking them.

The nomenclature both from your patent application to some parts of the white papers -- and I understand that there are many iterations of it. I've had to read virtually every one -- and the academic papers sometimes commingle and use a nomenclature of convexity bias, sometimes convexity effect. Oftentimes they mean the same thing, sometimes they don't. So I want to make sure just the record's very clear so I can understand your thinking in the emails I've seen about looking at convexity bias, okay?

A Okay.

Q So, again, I don't want you to perceive these questions as being, you know -- they are not patronizing. I'm trying to just create the record to make sure I understand what this actually means, okay?

A Okay.

Q I thought the best way to start with the convexity is to start to talk about the Eurodollar futures contract. My understanding is that contract is highly liquid, would you agree with that?

A Yes.

Q And that the price of that contract and interest rates are highly correlated?

A Yes.

Q And also my understanding is -- I think this comes from your patent, maybe not -- that there's an inverted relationship when the daily settlement price rises, the implied interest rate falls, is that correct?

A That's correct.

Q And the long futures position will increase in value when the daily settlement price rises and the implied interest rate decreases, is that correct?

A That's correct.

Q In that last situation I described, the long would receive variation margin, is that correct?

A That's correct.

Q And then because it's a futures contract, the long could invest those funds any way it wants, is that correct?

A That's correct.

Q Conversely, the short increases in value when the daily settlement price falls and the implied interest rate increases, is that correct?

A That's correct.

Q And when short receives variation margin, it can invest it as well?

A That's right.

Q Okay. Comparing those -- or maybe perhaps contrasting is the right word -- comparing those two dynamics or that dynamic, is it correct that the short will always generate more profits than the long even if the price movements of the contract is equally dispersed?

A That's not how I would describe it.

Q How would you describe it?

A I mean, in fact, I would disagree with the statement that, you know, for an equal number of basis point moves -- of movement up or down the short and long are going to make exactly the same amount of money. The difference is that -- especially for, you know -- and this becomes material for longer-dated futures contracts, the short -- somebody who has a short position in the Eurodollar futures contract, let's say, the yields rise 20 basis points. He then gets 20 basis points of variation margin and he can take that money as you said and invest that money.

Now, he could elect to invest that money in a checking account in which case the 20-basis point rise in a Eurodollar futures contract that, let's say, matures in 10 years probably wouldn't really benefit him. But he could also buy a zero coupon bond that matches the expiration date of the Eurodollar futures contract under the assumption that if the market just doesn't move again for the next 10 years, then he can essentially earn interest or in the accretion of that zero coupon bond to par over that period, okay?

So if he buys that zero coupon bond after the interest rates have gone up 20 basis points, presumably he is going to be buying it at a higher yield or a lower price. If then the next day interest rates go back down, so Eurodollar futures go back up, and now he -- his clearinghouse calls him up and says, hey, you need to send us the 20 basis points back, then he can take a zero coupon bond and go and sell it. Presumably the yield of that zero coupon bond has declined, in other words, the price has risen. So he can sell that zero coupon bond for a profit.

So he can -- so he's getting his 20 basis points back, plus he's getting a little extra back because he just sold the zero coupon bond at a price that's slightly more favorable than he bought it for before. So then he takes the 20 basis points, sends it back to the clearing firm and he has a little bit of extra profit. Of course, the flipside of that, the person who was long in the Eurodollar futures contract has essentially the opposite problem.

Now, they can take the risk and borrow overnight instead of, you know, borrowing via a longer duration instrument, but they're essentially taking risk by doing that. And so if they want to have a truly kind off arbitrage-free portfolio, they need to extend out to a duration that matches the futures contract and so they're going to have that incremental little bit of loss.

Q And how would you describe that sort of inherent advantage that the short has that you just described?

A Well, the cumulative expected effect of those -- kind of that investment and reinvestment or -- of variation margin results in what is now known in the market as the convexity bias in the Eurodollar futures curve.

Q Okay.

A There's a paper that's written by Galen Burghardt in like 1994 that highlights this.

Q Always cite it. That's the one --

A Probably the first one that wrote about it.

Q And just so I'm clear, you said results in the convexity bias. What do you mean by "result"? What is the result that you're referring to?

A Well, what happens is that market prices Eurodollar futures at a higher yield than a corresponding OTC interest rate swap. Now, that wasn't always the case. In fact, in the early '90s, very early '90s, late '80s, the Eurodollar curve was pretty much right on top of the interest rate swap curve because people didn't really differentiate and people hadn't really thought about the effect of these cash flows.

And some of the American banks actually, you know, started to kind of come up with a theory that Eurodollar futures should trade at a higher yield and they put on trades selling

Eurodollar futures. There are actually French banks that took the other side of the trade and, you know, eventually, you know, that article was published and then people kind of had a framework for thinking about it and discussing it.

But, you know, the extent to which the amount of convexity bias, I mean, you don't really know how much to put in because it all depends on the future volatility of the market.

Q I'm going to try to summarize what you just said.

MR. ULLMAN: Actually, can you read that back, please.

(Whereupon the portion of the record was read as requested.)

Q Is it fair to say that the result of the convexity bias that you described is based on market knowledge of sort of this inherent disparity that you described earlier in your testimony?

A I mean, I guess you could say that. I think of it just as supply and demand.

Q We'll leave futures for a minute. Now I want to go to vanilla, uncleared vanilla interest rate swaps and talk about the same issue. Would you agree that uncleared interest rate swaps are highly correlated to interest rates?

A Yes.

Q And that correlation is positive?

A Sure.

Q And tell me what your understanding is about how collateral flows between parties that are on other sides of OTC vanilla swaps -- vanilla interest rate swaps?

A Assuming that two counterparties have, let's say, a zero threshold in place to simplify matters, then -- and they have an open position on and the position goes in favor of Counterparty A for, let's say, a million dollars, then Counterparty B sends collateral to Counterparty A. Generally --

MR. ULLMAN: If we can go off the record for a second. Sorry.

(Discussion off the record.)

A Generally the ISDA specifies that the collateral can be in the form of either cash or securities. If the collateral is in the form of cash, it generally specifies an interest rate at which Counterparty A will pay interest to

Counterparty B. If it's in the form of securities, let's say, Treasuries, then Counterparty B still has the rights to any coupons or, you know, accruals or whatever on those securities.

Q Understood. Does the collateral that's exchanged -- does the possession of the collateral actually change in that transaction that you just described?

A No.

Q And I take it --

A The ownership doesn't. The possession may change, but the ownership doesn't change.

Q Understood. Does the party posting collateral receive interest on the collateral?

A Yes. As I said, if Party B sends over cash, then Party A pays interest on that cash, not -- if it's securities, then no.

Q But with cash, yes?

A Yes.

Q Summary question for you. My read, the swaps are distinct from futures because in futures the party receiving variation margin owns the margin and interest generated; but in swaps, again, assuming cash is being posted, the party posting collateral still owns that collateral and any earned interest, is that correct?

A I agree with your statement if you modify it slightly.

Q Okay. How so?

A The important differentiator is uncleared swaps. If you took a cleared swap, though, the cash flows are the same as for a futures contract.

Q You predicted my next series of questions. So am I correct that uncleared OTC interest rate swaps do not have convexity bias?

A That's correct.

Q Same question having to do with OTC swaps, uncleared OTC swaps. Can you think of any other sort of additional benefit that is generated from the posting of collateral versus in perhaps a futures contract?

A I'm not sure what you mean by that.

Q So that's the answer I'm looking for. To summarize -- I want to make sure I understand this -- do we agree with each other that futures contracts that are highly correlated to interest rates have convexity bias? Do you agree with that statement?

A I think that it's not unreasonable for the market to price a convexity bias in those contracts, but the convexity bias doesn't just exist. I mean, somebody has to -- you know, the market has to put it there.

Q Understood. And uncleared OTC interest rate swaps do not have a convexity bias?

A I mean, by definition -- because a convexity bias is the difference between the two.

Q Understood.

A -- that's the case.

Q Just making sure I understand. Got it. I think you testified earlier that cleared interest rate swaps do not have a convexity bias, is that correct?

A Cleared interest rate swaps -- I don't have enough -- that's not a correct statement.

Q That's what I wanted to ask you about because I thought that's what you testified to. I could be wrong. My understanding is that bilateral cleared swaps may or may not have convexity bias, is that correct?

A That's right.

Q And it all depends on how variation margin is treated, is that correct?

A That's correct.

Q So if a cleared swap treats variation margin like the way an uncleared swap deals with collateral, the one posting collateral variation margin earns interest on that collateral -- let me rephrase. Do you know what LCH.Clearnet is?

A Yes.

Q Are you familiar with how they deal with cleared interest rate swaps?

A Yes.

Q How do they do that?

A If a party has received variation margin, then their account is debited interest every night at a rate equal to the benchmark interest rate for that currency. So in the case of dollars, it's debited at OIS, and for a party that has paid out variation margin they receive interest at the same rate.

Q And based on your earlier testimony, am I correct that you believe that there would not be a convexity bias for these LCH.Clearnet swaps?

A That's correct.

Q Do you know what price alignment interest is?

A Yes.

Q Can you explain for the record what it is?

A That's the interest which is paid pursuant to the methodology that I just described.

Q In your mind as you sit here today, do you understand a distinction between convexity bias and the convexity effect?

A No.

Q Going back to our relevant period of 2010-2011 and going back to the IDCH or IDCG contracts, what is your -- do you believe that those contracts had convexity bias?

A Well, as I said earlier, we believe that by paying fixed on IDCG contracts, that in hedging them with OTC swaps, that we would create a portfolio that had positive expected value. And, yes, that's driven by the lack of a PAI adjustment or some other mechanism on IDCG.

Q Can you describe other types of adjustment mechanisms other than PAI?

A Well, I mean, the other way of adjusting a futures contract is the solution that I came up with working with my head of quantitative research, and that is to embed in the terminal settlement value of the futures contract an adjustment that reflects essentially the cumulative effect of what the PAI payments would have been.

Q And, I'm sorry, I guess I missed -- who is the head of your -- is it quantitative --

A Yeah, Yuhua Yu.

Q Is that a man or a woman?

A A woman.

Q And what's her position again? I'm sorry.

A Head of quantitative research.

Q And was she the head of quantitative research in 2010 through 2011?

A Yes.

Q Do you know whether generally Eurodollar futures trade at higher yields than corresponding uncleared forward-rate agreements?

A Yes, they do.

Q And sometimes forward-rate agreements are referred to as FRAs, is that correct?

A That's correct.

Q And do you know why that is the case?

A For the same reason.

Q And what reason would that be, just so the record's clear?

A The difference in the cash flows.

Q And you may have testified to this before, but as you can imagine, this is quite complicated and I want to make sure I understand it. In your opinion does convexity bias become more pronounced the longer the time to the futures maturity date?

A Well, I mean, that actually depends on the correlation term structure as well as the volatility term structure. Now, generally it does because of just the greater number of days on which you could have these cash flow movements. However, if the correlation term structure, you know, were downward sloping or the volatility term structure were downward sloping, the convexity bias wouldn't necessarily go up over time.

MR. ULLMAN: Why don't we take five minutes. I'm close to finishing up this section. Is that okay?

MR. HELWIG: Okay.

(Whereupon a recess was taken from 11:30 a.m., to 11:40 a.m., after which the following proceedings were had:)

MR. ULLMAN: We're back on.

Q I have a few kind of followup questions on cleared interest rate swaps. These may be summary. And if I misspeak, I know you'll tell me. And I want to talk about convexity bias again and how it relates to cleared interest rate swaps.

Am I correct that if a cleared interest rate swap treats variation margin similarly to an uncleared OTC swap, there should be no convexity effect -- and I think you maybe even testified to this -- by definition there would be no convexity bias in the first place?

A That's right.

Q In other words, when there's no convexity bias, then the longs don't have any reason to negotiate a lower rate with the shorts. Do you agree with that?

A That's not how I think about it at all.

Q Can you tell me how you think about it?

A Maybe I should just take a step back now and -- I mean, this, you know, maybe appears very obvious to you in retrospect of how to price these contracts after reading our white paper and all that.

Q (Shaking head).

A I assure you that at the time that we were trying to figure this out we had extensive debates internally about whether in fact there should be a convexity bias on IDCG or not. And, you know, I remember specifically one of our senior traders -- none of the ones that we've talked about today -- but a trader who ran the swap desk at B of A was really convinced that there should be -- that the IDCG contract should trade right on top of the OTC swap curve and that there should be no bias.

And, you know, we had some pretty extensive discussions about, you know, whether -- you know, and then I was pretty convinced that there should be some kind of a pricing differential and the quants were quite convinced initially that the extent of the differential should be much smaller than the Eurodollar strip. So lots of, you know -- internally when we're thinking about this stuff and we're considering whether or not to put on a position, you know, none of this was at all clear to anybody.

Q Understood. Was that because the market was new or because it had little liquidity?

A No.

Q No.

A It's just because a product like this had never existed before and it's a new product, you know. The reason for the convexity bias is, you know, even very experienced swap traders don't necessarily think about it all the time and -- so, yes, because it's a new thing, I mean, there's uncertainty -- anytime a new thing is created, there's uncertainty in how to price it. Just like when Eurodollars were launched, there was no convexity bias in Eurodollars because people didn't really think about it.

Q Let's go back. A few more summary questions, and these are more sort of abstract questions. I'm not asking you directly in terms of IDCH or in terms of DRW's internal -- I understand about those internal communications, but these are sort of -- these aren't trick questions. I'm just trying to understand this abstractly to make sure I understand.

But is there a way that -- I think you testified before, tell me if I'm wrong, that a cleared interest rate swap could have the convexity effect based on how it treats variation margin, is that -- am I correct on that?

A Yes. If SwapClear did not have PAI, then interest rate swaps cleared at SwapClear I would expect would trade at higher yields than equivalent uncleared swaps. You know, there was also debate in the market at the time. Some back-office people at large institutions felt that PAI was an unnecessary complication and that, in fact, it would be better even on venues like SwapClear not to have PAI.

Q And was that ever IDCG's position?

A Well, obviously. They launched a contract without PAI.

Q But I guess the specific -- what you just testified to, that there was some debate that it makes it too complicated, was that ever articulated to you?

A No.

Q Do you know if in negotiating cleared interest rate swaps and this acknowledgment, at least the potential of the convexity effect, whether that enters into negotiation from the fixed side?

A When you negotiate any financial instrument, you negotiate the terms and the price. There's no discussion of, oh, let's add on five basis points for convexity bias.

Q No, of course. But, I mean, underlying those negotiations about price, in your experience do longs take into account potential of convexity effect?

A As I said, in Eurodollar futures, generally Eurodollar futures trade at higher yields than corresponding OTC swaps. So I suppose the market takes it into account, although as I also said, that hasn't always been the case.

Q Thank you. Let's move on to implied forward rates. It's my understanding that OTC swap traders may take implied interest rates generated by the Eurodollar futures contract and use them as a proxy for forward rates to create a zero coupon discount curve, is that your understanding?

A I mean, you may need to do some

adjustment for convexity bias but, yes, you can use them as a tool in generating a forward curve.

Q And I apologize because this is a simple question, but how would you take into account convexity bias in doing that?

A I mean, you could come up with an estimate of the bias in the market by comparing Eurodollar futures with equivalent OTC swaps or you could use some kind of a pricing model, you know, which has assumptions about volatility and correlation, and you would then adjust the yield of the Eurodollar futures slightly in order to take that into account.

Q Understood. Let's go back specifically to the IDCH open positions, and I think you testified earlier who -- or let me ask again.

In terms of negotiating the swap agreements that were swapdropped and turned into open futures positions, who were the lead negotiators for DRW?

A I think I said before, but Barry and Vander were the two primary traders who were involved in that process.

Q And they -- I take it from your previous testimony they were interfacing with Marcus Katz on that?

A That's correct.

Q Do you know whether Barry and Vander took into account convexity bias when they were negotiating the fixed rate that DRW was paying on these interest rates?

A I mean, this is kind of a circular thing --

Q Okay.

A -- because convexity bias essentially is something that is -- you can see in the market in looking at the prices of the instruments that are traded. So if you trade two instruments at the same yield and -- then there is no convexity bias.

Q I guess what I'm saying is before when you were talking about the -- I'm sorry. Did I interrupt you?

A No. Go ahead.

Q Before you were saying there was an internal debate in DRW about the convexity bias on the IDCH contracts, correct?

A That's right.

Q And I think you said before that you talked to someone who was the head trader at Bank of America internally and your quants were having discussions about whether there should be an effect at all and, frankly, what that effect is, is that right?

A That's correct.

Q And I think you testified earlier that that was made difficult because this was a new product on a new exchange, is that correct?

A That's right.

Q So what I'm trying to figure out is in August and September of 2010 DRW enters into these swapdrop agreements in terms of open futures positions. Clearly they're negotiating their counterparties that are -- I mean, Marcus Katz is bringing them together.

What I'm trying to figure out is do you know -- you may not know -- but do you know whether there was some type of convexity bias included in DRW's negotiations on these open positions?

A I mean, with all due respect, that question doesn't make sense.

Q Okay.

A Of course, you know, as I said earlier, we believed that we had positive expected value in paying fixed on IDCG because we believed, you know, and we came to the conclusion -- and really I came to the conclusion -- you know, as a result of all the discussions that we had internally that, in fact, you know, there was positive expected value in paying fixed on IDCG if we could do so close to where the equivalent OTC swap rate was trading. So if we paid a basis point over, then you could say that we paid one basis point of convexity bias.

Now, obviously whoever took the other side of that trade looked at that and said there shouldn't be any convexity bias here. These guys are morons. A basis point, ha, two basis points, ha, free money. So they thought they had positive expected value, we thought we had positive expected value. That's generally the way that markets work. Two market participants -- I mean, assuming both market participants are merely in the business of putting on positions to, you know, collect positive expected value, which obviously is not always the case, maybe somebody's a hedger, but in this case both market participants were putting on trades because they thought they had positive expected value.

We were not trading with a hedger. We were trading with somebody else who also thought, hey, these guys are paying too high a yield for these things. Free money, ha, let's take their money. And the amount of yield differential that we paid compared to the OTC swap you could describe as convexity bias or you could describe it as what they thought at the time was just somebody being really dumb and giving up edge.

Q Can you explain what the net present value effect is?

A Yeah. The net present value effect, or as we coined it, the NPV effect, is an effect that takes place even in products which are not correlated with interest rates. So, for instance, the example that we used when talking about this I believe was natural gas.

Q That's correct.

A Where there's no correlation with interest rates. And if you enter into a 10-year OTC interest rate -- or natural gas swap, there's a difference between that and a cleared interest rate -- and a cleared natural gas swap because of the difference in the cash flows. And there shouldn't be any convexity bias as a result of that, but there is this side effect, this sort of less meaningful side effect which we call the NPV effect. One of the effects of that is that essentially for a given, a fixed move in the price of natural gas, the value of the OTC natural gas swap will move less than the value of the cleared natural gas swap because of the lack of discounting in the cleared version because of the lack of a PAI.

Q Was there any internal debate at DRW about the NPV effect and how it would affect the swap agreements that were turned into futures positions?

A I mean, that was -- I think that that's a term that we made up.

Q Okay.

A And it's not really something that we had really spent much time thinking about before. I guess we were always kind of intuitively aware of the fact of its existence, but we had never really described it in that manner. I don't think that it generated any debate but, you know, it's -- you know, when these discussions of futurization come up, it's something that I point out, that really the futurization took place when ClearPort came into being, not the futurization, even though they were still called swaps. And really that transition was of one product to another but was not economically equivalent. When last year the NYMEX just changed everything to futures, there was no economic effect there of that change.

Q As you sit here today, do you have an understanding of how the daily settlement price was calculated for DRW's open positions on the IDCG?

A Well, I think we talked about that earlier, and there was some period of time during which -- well, initially they just used the OTC swap curve. I'm not sure where they got it from but, you know -- then -- however, you know, I guess they always had the rule that if a bid or offer on their screen on their DCM was, you know, conflicted with that, then they would use that point.

So when we started posting prices on the screen, which was the exchange's suggestion just to be clear, the -- they then used those prices to generate the settlements, and I think it was over some window of time. I don't remember exactly.

Q I have a few followup questions.

Who suggested --

A It was Garry O'Connor.

Q Do you remember when he did that?

A That was in a phone call in maybe December of 2010. I don't remember exactly, November, December.

Q And were you involved in a direct conversation with him about this?

A Yes.

Q And to the best of your recollection, what did he tell you?

A Well, as I said earlier, we had had a number of discussions with him about the fact that the settlement prices were not -- did not reflect the bids that we were showing in the broker market.

Now, if I were the CFTC, I would be very concerned about that, about an exchange settling something at a price that did not reflect the price at which that instrument is trading. That is the whole -- one of the primary benefits of futures markets is that settlement prices are computed every day based on the value of those instruments, the prices at which those instruments are trading. So the lack of a reflection of the market activity in that clearinghouse obviously actually creates risk to the clearinghouse and the whole system.

So I had a number of discussions with him about the exchange's failure to reflect the prices at which things were trading. After several of those conversations he then suggested that -- at first he was saying, well, I need to go and get permission from the CFTC and from the other clearing members to reflect prices that are in the broker market. And that, quite frankly, makes no sense to me, made no sense to me at the time. I think it's a very poor answer. However, he then suggested that we disseminate prices on the DCM electronically. And he said that if we did that, then those prices would be used, would be taken into account in determining the settlement prices.

Q Were you frustrated with Garry O'Connor in the fall of 2011?

A I was baffled by the fact that here's a clearinghouse and a DCM that's settling an instrument at a price that does not reflect the price at which the instrument's trading. That seems like a big problem to me.

MR. ULLMAN: Mark this as Exhibit 3, please.

(Whereupon Exhibit No. 3 was marked for identification, MM.)

Q I'm handing you what's been marked as Exhibit 3. It is an excerpt from the IDCH rule book. It is also for full disclosure dated September 1, 2010. There was an earlier iteration, but I want to talk about this set of rules. Why don't you take a second and give it a look, and then I have a few questions for you.

A (Witness complies).

Q And in particular I will direct your attention to page 10744 and what is Roman Numeral (i), Daily Settlement Price.

A Okay.

Q As articulated in Exhibit 3, is that your understanding of how the daily settlement price is calculated? I'm not talking about the discount curve, but I'm talking about the flows that are being measured.

A Yes.

Q And do you know whether you specifically analyzed IDCH's rules before creating open positions

on the IDCH?
A I don't recall.
Q And do you know if your traders looked at the rules before they established open positions?
A I doubt they did.
Q How come you doubt that they did?
A Not necessarily the kind of thing that traders pull up and look at.
Q Fair enough. Do you know when -- and I'm talking about you specifically -- when you first looked at the exchange's rules?
A I don't recall.
Q At some point did you in, say, 2010?
A I don't remember.
Q And I assume that's the same answer for 2011?
A That's correct.
Q Did you have a general understanding about what flows were valued on the IDCH contract when DRW entered into the positions?
A I mean, fixed versus floating cash flows, sure.
Q At the time were you aware that -- did you believe that IDCH included variation margin

payments as part of cash flows or did you believe that IDCH only considered periodic coupon payments that the parties agreed would occur?

A I mean, any futures contract has variation margin flows, but I don't really understand the question.

Q Well, I guess -- I understand that point. But I guess in terms of the daily settlement price and what flows were being counted, did anyone ever tell you or did you ever have the belief that variation margin would be a separate flow that would be included in terms of valuing the daily settlement price?

A I'm sorry. I'm not understanding your question.

Q And I'll tell you the reason why I'm asking it, but I want to make sure I understand it. As articulated in the rule that sits in front of you, is that -- I guess as you sit here today, is that your understanding of how the daily settlement price was calculated in terms of the cash flows that were valued?

A I mean, my reading of this is that the value -- each leg of the cash flows, both fixed and floating, according to the discount factor's generated by the IDEX curve. So, I mean, that makes sense to me.

Q And I don't want to belabor this, but I just want to make sure it's clear. Did you ever have the understanding that variation margin payments would be factored into the daily settlement price?

A I don't even know what that means.

Q That's all the answer I needed. You testified earlier about a series of phone calls you had with Garry O'Connor at IDCH in I think you said the fall and winter of 2010, is that correct?

A Yes.

Q And on one of those phone calls, I think you said it was November-December 2010, you testified that Mr. O'Connor suggested injecting things electronically, is that correct?

A That's correct.

Q Was that the first time -- and you were on that phone call, correct?

A Yes.

Q And the person we're calling Vander, was he on the phone call?

A I don't recall.

Q Was Silberberg on the phone call?

A I don't recall.

Q Did you ever convey that information to Vander and Silberberg that O'Connor told you?

A Yes.

Q And why did you convey that to them?

A Well, we were, as I said, concerned by the fact that the exchange was not settling the contracts at prices that reflected where they were trading in the marketplace, and we were working on coming up with a solution for that.

Q Was that the first time you specifically learned that market behavior could supplant OTC rates in the generation of the IDCH's discount curve?

A No. I mean, the way that -- I mean, when you read this, it says that the discount factors are generated by the IDEX curve.

Q Um-hmm.

A So the way that I think about that is the IDEX curve isn't necessarily the same as the OTC swap curve, and it's entirely plausible that the IDEX curve may be, you know, different. So I was --

I mean, I guess that I just always assumed that the IDEX curve would reflect the yields of the contracts that traded on its exchange and were cleared at its clearinghouse regardless of where the OTC swap curve was.

Q And I know it's a long time ago, but you said that was an assumption. Do you remember anyone communicating that to you before your phone call with Garry O'Connor in November-December 2010?

A No. But, again, if you -- if it weren't the case, then it would be conceivable that a clearinghouse would have contracts on it and would provide settlement prices that did not reflect the values at which those contracts were traded, which is inconsistent with the way that futures markets are supposed to work or really any clearinghouse for that matter.

Q Right. But that's for consummated trades, right? I'm talking about just bids that are never lifted.

A Well, I mean, what's the difference?

Q Well, I mean, the difference is -- and I'm not unfortunately -- luckily you don't have to ask me questions today. But you don't see a difference between those two things?

A No. I mean, it's the clearinghouse's job to provide settlement prices that are as close to the way that the market values them as possible, regardless of whether there's open interest in them or not. If they're publishing a curve, they should -- I mean, they should go out of their way to find out where people are willing to trade those things.

Q Did you ever receive a document from IDCH or drafted by IDCH that talked about how it uses bids and potentially offers in consummated trades to help fill out its discount curve?

A I don't recall receiving one.

MR. ULLMAN: Can you mark this as 4, please.

(Whereupon Exhibit No. 4 was marked for identification, MM.)

Q Mr. Wilson, I'm handing you what's been marked as Exhibit 4. It's Bates No. D0134940. Would you do me a favor and give it a quick read and look up when you've had a chance to give it a review.

A (Witness complies).

Q Have you seen this email before?
A I mean, I don't recall seeing it.
Q Just so the record's clear, is this your correct email address on it?
A Yes.
Q And that's DonaldWilson@DRWHoldings.com, is that correct?
A That's correct.
Q Do you remember anything about this email?
A As I said, I don't remember writing it, but I'm sure I did.
Q Okay. Let's see if I can refresh your recollection a little bit. This first sentence, "We need to make a concerted effort to get these initiatives fully functional now. This is the beginning of what we have been talking about for years but we need to get it right." Do you see that sentence?
A Um-hmm.
Q What are you referring to in that sentence, if you can tell me.
A So this is the general theme that I touched on a little bit earlier of, you know, as -- so interest rate swaps are, even though as

we've discussed, are very similar to Eurodollar futures and even though we were -- have been for years one of the largest market participants in the Eurodollar options and futures markets, the interest rate swaps market was always a market in which we had only, you know, kind of very modest access. We only had access to that market as essentially a customer.

And so the theory was that if interest rate swaps became cleared or, you know, somehow futurized or whatever, that that would kind of open up that market and provide firms like DRW the opportunity to participate in that market and compete with the dealer banks, you know, in the same way that we compete in Eurodollar futures and options.

Q Do you know what FIA is?

A Yes.

Q And can you tell me what it is for the record, please.

A Futures Industry Association.

Q And do you serve on any panels for FIA?

A I'm on the board of FIA, yeah.

Q And in terms of being on the board of FIA, have you dealt with futurization of swaps issues before?

A Yes.

Q And in what capacity?

A I mean, I've been on panels and chaired panels that discuss that topic.

Q Two-thirds of the way down the page it says, "DRW only, No. 4." Do you see that?

A Yes.

Q It says, "No. 4 priority is to really understand IDCG." I should tell you this email was written on July 23, 2010. It says, "Confirm the contract has full convexity bias (despite the fact they will force it to settle at non-convexity biased prices)." Can you tell me what that sentence means?

A Well, so this is -- you know, I guess during the period where I believe that it has convexity bias but some other people believe that it doesn't, and then there's a question of how much should it have. So this is, you know, this is still obviously we haven't concluded what it is. And, you know, then in parentheses, the despite the fact that they will force it to settle at non-convexity biased prices, so I guess that at the time I had the understanding that, you know, they would settle the contracts on top of the OTC curve regardless of where they traded.

Q One of the recipients is Neal Brady.

A Um-hmm.

Q Who's Neal Brady?

A He's the CEO of Eris.

Q What's Third Stone? Do you know what Third Stone Partners is?

A Yeah. That was kind of a small venture capital group that he was working with before he joined Eris.

MR. ULLMAN: What are we up to, 5.

(Whereupon Exhibit No. 5 was marked for identification, MM.)

Q Mr. Wilson, I'm passing you what's been marked as Exhibit 5. Can you give it a look and then look up when you're ready for me to ask you a few questions about it.

A (Witness complies).

Q Can you describe what Exhibit 5 is for the record, please.

A This is a patent application for an

invention which was developed by me and Yuhua Yu for a method for creating an interest rate swap futures contract that had an essentially embedded PAI adjustment in it.

Q I take it from the publication date that the patent has been granted, is that correct?

A No, I don't think that it's been granted yet.

Q Do you know what stage it's in?

A It's in the, you know, iterative stage.

Q Fair enough.

MR. ULLMAN: Mark this as 6, please.

(Whereupon Exhibit No. 6 was marked for identification, MM.)

Q I'm handing you what's been marked as Exhibit 6. It's Bates numbered D0190794. Please give it a quick read and look up when you've had a chance to look at it.

A (Witness complies).

Q Can you identify what this email is for the record, please.

A This is first an email from Sam Stephenson who runs our back office describing information that he obtained after speaking from Garry O'Connor --

with Garry O'Connor at IDCG, and he's talking primarily about the methodology that is used for closing out an existing trade.

Q In the second sentence of your email, it looks like --

MR. ULLMAN: Is this partially redacted, these squares at the beginning? Maybe it's just --

MR. HELWIG: I don't believe these are redacted.

MR. ULLMAN: Then I was wrong.

MR. HELWIG: Yeah.

BY MR. ULLMAN:

Q There appear to be some squares. We'll ignore those. But it says, "There is convexity bias changes in Mark-to-Market value move through variation margin daily and there is no PAI. They have indicated that it is something they are considering." Can you elaborate on that statement at all?

MR. HELWIG: For the record, it appears that there are quotes around that and he's quoting something, right?

A I'm quoting something that Sam said

further below.

BY MR. ULLMAN:

Q Okay. So that's just an ongoing question you have when it comes to the next paragraph, "They acknowledge there should be a convexity bias but they are forcing it to settle without one." I just want to make sure there was no other independent -- I see now it's quoted from the bottom. I was confused by the squares.

MR. HELWIG: And the squares might have come from a cut, copy and paste or something.

MR. ULLMAN: Yeah, that's fine. Yeah, it's no big deal.

Q On the bottom you said, "They are considering adding PAI? I assume this would not be forced on existing open interest, since that would be a material change to the contract?" Do you see that?

A Um-hmm.

Q Did you ever find out whether IDCH was considering PAI or not?

A Well, in a meeting in November they told me that they were.

Q Who told you specifically?

A Garry O'Connor.

Q That's different than the phone conversation you had with him?

A That's correct.

Q And did he tell you why they were going to -- or they were planning to add PAI?

A I guess that they had concluded -- I mean, you know, while initially they launched a contract without PAI, I guess that they decided that they wanted to change and launch one with PAI.

Q Any other information about that meeting about PAI that you can remember?

A Well, I mean, it was during the FIA expo. It was at an Irish pub in the hotel where it's held in the Hilton. And initially Garry said, you know, you need to take your positions off and I said, you know, why. I mean, that's very strange. Why would you want me to take our positions off. And he said, well, you know, if you don't take your positions off, then we'll just add PAI in the contract.

I mean, that doesn't make any sense. You can't just change a contract. The contract specs say there's no PAI. And I said why don't you launch a new contract that has PAI. People can trade both curves, the curve that has no PAI and the curve that does have PAI. And he said okay, well, I guess that's another way of handling it.

Q Did you have any further conversation with him after that about PAI?

A I don't recall.

Q What city were you in when this occurred?

A In Chicago.

MR. ULLMAN: Let's go off the record for a second.

(Discussion off the record.)

(Whereupon a lunch recess was taken from 12:34 p.m., to 1:10 p.m., after which the following proceedings were had:)

A F T E R N O O N S E S S I O N

MR. ULLMAN: Let's go back on the record.

DONALD R. WILSON, JR.,

called as a witness herein, having been previously sworn and examined, testified further as follows:

EXAMINATION (Cont'd.)

BY MR. ULLMAN:

Q Could you grab what's been previously marked as Exhibit 2, please.

A (Witness complies).

Q It is the position report from IDCH. And you have the correct page, 14069?

A Okay.

Q And if you could, just for reference for the next email I'm going to give to you, look at the effective date. Do you see the effective date column?

A Um-hmm.

Q And you'll notice that there are a series of positions that are put on in mid-to-late September 2010. Do you see that?

A Yes.

MR. ULLMAN: Let's mark this, what are we up to, 7.

(Whereupon Exhibit No. 7 was marked for identification, MM.)

Q I'm handing you what's been marked as Exhibit 7. Feel free to give it all a look, but what I'm particularly interested in is the first half of the first page, which is D559.

A Okay.

Q Can you identify this email for the record, please.

A This is an email from Vander to Barry in which he forwards an email from David Drustrup and makes a couple comments.

Q You'll note the date is September 24, 2010. Do you see that?

A Yes.

Q In the email Vander says, "I'm chomping at the bit to get back. Seeing that this is now a reality and that we are trading a swap book. How has it been, seeing good flow? Has Katz brought any more suckers in for a trade?" Have you seen this email before?

A I don't think so.

Q Do you know why he's asking if Katz brought any more suckers in for a trade?

A Well, presumably he believes that the trades that we've been doing have positive expected value. I don't know -- I mean, he's asking if we've done any more trades.

(Whereupon Exhibit No. 8 was marked for identification, MM.)

Q Handing you what's been marked as Exhibit 8, it's Bates 663 or D0000663. Please give it a quick read and look up when you're ready for me to ask you a few questions about it.

A (Witness complies).

Q Have you seen this email before?

A No.

Q And that's dated November 3, 2010?

A Yes.

Q Do you know what this is referring to? It says, "I think what we will have to do is at 10 a.m. send our offers to IDCG directly to move the 10 a.m. settles and do the same at the close." Do you know what the significance of 10 a.m. is?

A As I said earlier, they had a midmorning curve, you know, that they published.

Q Is it your understanding that your traders were putting in bids and offers around

10 a.m. to move the settles?

A Well, here, so at this point we're not putting any bids or offers into any electronic system. As I earlier said, we were very concerned at this point by the fact that the settlement prices on the exchange did not reflect the prices that we were willing to pay and, you know, we wanted to highlight the fact to the exchange, the fact that they were not settling things at prices that reflected their fair values.

So as any market participant would want to do, they were trying to figure out how to emphasize to the exchange the fact that the exchange was inaccurately settling the contracts.

Q And what's the basis of that statement, that they were -- did you say inaccurately settling the contracts?

A That's right.

Q What's the basis of that statement?

A For instance, let's say that I'm bidding 10 for something and the exchange settles it at 5. Then the exchange is settling a contract at a price that is below the price at which I'm willing to pay. That would be an inaccurate settlement price.

And, again, I mean, that's the type of thing that the CFTC should be very concerned about as well. If an exchange is settling a contract at a price that does not reflect the price at which it's trading in the marketplace, I mean, that puts the whole system at risk and the clearinghouse at risk. CFTC should be very interested in ensuring that the contract is settled as close as possible to the price at which people are willing to transact in the marketplace.

And I think that, you know, it's important to differentiate -- as I said, you know, I spent years standing in the Eurodollar option pit and I was on the settlement committee for a lot of that time. And there were instances in which, you know, a market participant might have a large position in a given strike or spread or whatever it was. Sometimes -- and let's say that the market in that spread is 5 bid at 6, okay, and the market participant is long.

Now, sometimes in order to ensure that their spread did not settle below the market, they would come in and bid 5 on the close, say I'm 5 bid, and they would clearly represent that they were 5 bid. Anybody who wanted to sell them the spread at 5 could sell it at 5, but I am 5 bid, do not settle it below 5. And I always looked at that as, you know, part of the price discovery process. They're ensuring that this item which they're willing to buy more of for that price settles at least at that price, and they're representing that price in the closing range.

Now, in some cases some market participants -- same set of facts -- would come in and put in an order two seconds before the close and say I'm, you know, 7 bid and the broker would kind of go 7 bid. And then after the close the broker would come down and say, hey, I was bidding 7 in that. You have to settle this at 7. And we'd say no, you weren't. You were never willing to pay 7 in that during the day, and that's not the value of that thing. Everybody was 5 bid at 6. You know that. It will be settled no lower than 5 and no higher than 6, but you didn't represent your bid in the closing range in a manner that enabled market participants to trade with you. Therefore, you know, I mean, could you say you were trying to manipulate the price of the item? Probably a fair statement. But in any case, the price should be disregarded. It's not reflective of the market price.

In this case we're trying to put this position on. We have bids out in the market through a voice broker. Anybody who wants to trade with us can trade with us at any time of the day. So, yes, of course we want to make sure that the exchange knows during the window of time that they're computing the settlement prices that we're willing to trade at those prices, just like in the pit. Not that we're trying to pay 7 when it's 5 bid at 6, but we're 5 bid. It's 5 bid at 6 and we are 5 bid and please represent that in the settlement process. That's what's going on here.

Q And I guess was the conversion -- you retained Sky Road, is that right, to help inject bids electronically?

A Yes.

Q And that was, I guess, in January?

A January.

Q Was that part of the reason of retaining Sky Road, to inject bids electronically to affect the daily settlement price?

A Yeah. I mean, here, as I said earlier, we had a number of conversations with Garry O'Connor in which we said, Garry, we are bidding 5. Please don't settle our spread below 5, you know, to put it in context of the story I just told. And Garry kept on saying, well, I have to go and get the rules changed to be able to reflect your price, which doesn't make any sense. And, actually, when you read this -- their settlement process here, it makes it pretty clear, you know, in daily settlement price, notwithstanding the preceding sentence, the clearinghouse may in its sole discretion establish a daily settlement price that is a fair and appropriate reflection of the market.

I would hope so. Of course, they were not doing that. That's a problem. I mean, if I were the CFTC, I would be very concerned that the exchange was not doing that. But when Garry said you know what, if you put your prices on, you know, inject them electronically, then we the exchange will take them into account, we said okay. If that's what we need to do, that's what we'll do. But to be clear, it's not like we were bidding 7 when the market was 5 bid at 6. We were bidding

5 when the market was 5 bid at 6. We were willing to pay those prices all day long -- everybody knew it -- through the voice broker, on the screen, doesn't matter. And, yes, of course we wanted those prices to be reflected in the settlements of the exchange.

Q Why was that important?

A It should be important to the CFTC too because those prices reflected the value of the market. It was important to us too because we had positions on, and so we wanted -- and keep in mind, I mean, it's not like we hedged these one to one with OTC swaps and we had this massive tail on. So as the market moved, I mean, we had significant P&L fluctuation. So in order for the whole kind of are things -- I mean, we had significant P&L variance as a result and we wanted to -- you know, by moving the exchange settlements to the price we were willing to pay, not even what we thought fair value was, but just the price we were willing to pay, essentially, you know, helped to make the whole thing make sense.

(Whereupon Exhibit No. 9 was marked for identification, MM.)

Q Handing you what's been marked as Exhibit 9, it is Bates No. D0173672. Please give it a quick read.

A (Witness complies).

Q Before we do that, let's go back to the last exhibit. I forgot to ask you a few questions, Exhibit No. 8, please. It's the last letter --

A Yeah.

Q The second paragraph, can you give that a quick read, please.

A (Witness complies).

Q The last part where it says that they should be forced to settle to our offers, do you see that part?

A Yes.

Q Is that what you were just describing before?

A That's exactly what I was just describing. And not, you know, that we were bidding 7 when the market was 5 bid at 6, but we were bidding 5 when the market's 5 bid at 6. We're reflecting the price at which we're willing to trade. This is a good thing.

Q Okay, sorry. Let's go back to Exhibit 9. And you've had a chance to give this a quick read?
A Yep.
Q Can you identify this email for the record, please.
A This is an email from Yuhua Yu to me and other people at DRW.
Q She writes -- well, I guess before going into the specific text, do you have any recollection of this email?
A I don't remember.
Q When you read it here as you sit here today, do you know what she's -- what the subject of this email is? It says What's Next, but I'm trying to figure out what it relates to.
A Well, I mean, as I said, you know, we were throughout this whole process figuring out, you know, how to value these things, how to model them, how to hedge them. Lots of back and forth, lots of, you know -- and so now we're in, you know, the next phase is, hey, suppose somebody wants to unwind these, at what price should we unwind them. What do we think fair value is and, you know, how do

we unwind them. That's part of it. And the other part of it is if IDCG instead of just settling to the LIBOR curve to the swap curve settles to a curve that, let's say, reflects where our bids are or, you know, she poses the theoretical of our theoretical fair values, then how would that change the manner in which we're hedging the portfolio. And it turns out -- I mean, and it's not immediately intuitively obvious -- but it actually changes the way that you have to hedge the portfolio. So that's what she's talking about.

Q And this section here where she says, "Old regime: IDCG settle curve is a LIBOR swap curve," do you see that?

A Yeah. That's just the OTC swap curve is exactly what she's saying.

Q And the second part of it says, "New Regime: IDCG settle curve is DRW defined."

A Right. And that's more of a theoretical but, you know -- or not. But, yeah, so she's saying, okay, so this reflects the prices that we, DRW, are willing to pay. In other words, it's a reflection of where the thing's actually trading rather than this OTC swap curve.

Q Thank you for that. So am I right -- again, I'm just trying to figure out the context of this. I know at this point -- and I'll represent to you it appears that you're between iterations in this white paper, which I'm happy to show you the exhibit, but in this date. But you think that as you read it here today -- I don't know why -- let me just say for the record I'm not sure why the email was generated. But you think this was generated in the context of what is the closeout price on these open positions, is that --
A Yeah, I think it's two things.
Q Okay.
A You know, at what price do we close these out, you know. If somebody calls us up and says, hey, we want to take this off, where would we take them off. And, you know, not -- I mean, my philosophy on it was, hey, we'll take them off at our perception of fair value. Not everybody would do it that way but -- and then the other question was, you know, how does our hedging procedure need to change.
Q Okay. At this point had a counterparty approached you about closing out --

A I don't recall.
Q Sorry?
A I don't recall.
Q Just let me finish the question, okay?
A (Nodding).
Q Do you know -- and this is a more specific question. If you don't, that's fine -- what old regime versus new regime means, that distinction that she's making?
A Right. I thought that I just described that.
Q Okay. Can you describe it again because maybe I didn't understand it.
A She's defining old regime as IDCG is settling to the swap curve. IDCG is disregarding the prices at which their instruments are trading. That is old regime. Probably a problem. But, anyway, that's old regime. New regime is IDCG is taking into account the prices at which their instruments are trading. That's new regime.
Q Would it be fair to characterize old regime as when DRW was putting in voice bids only and new regime as being electronically entering --
A De facto that's the case.

Q Is Ms. Yu still with DRW?
A Yes.
Q Is she still the head of quantitative?
A Yes.
(Whereupon Exhibit No. 10 was marked for identification, MM.)
Q I'm handing you what's been marked as Exhibit 10.
MR. ULLMAN: Just for the record, I think this was produced in native format, so that's why it doesn't have a Bates number. But just for the record, I will indicate that it's an email from Ms. Yu on Monday, February 7, 2011 at 1:55 p.m. to Craig Silberberg and the witness, and some other people are copied on it. Just for the record again, the subject is Some Clarification.
Q Have you seen this email before?
A I mean, I don't remember it.
Q Can you tell from reading it what the context of this email was?
A Well, this appears to be a followup to the February 3rd email in which she's talking about some of the, you know -- a framework for

thinking about the unwind, kind of a fair value unwind price based on our, you know, modeling framework. And she's highlighting that there's essentially some iterative effects and it's a little bit not obvious.

(Whereupon Exhibit No. 11 was marked for identification, MM.)

Q I'm marking this as Exhibit 11.

A Okay.

Q Exhibit 11 is Bates numbered D0000907. It looks like it's an email from Vander Luitgaren to Craig Silberberg. Who's Jack Tian, by the way, who's copied on this?

A Probably a clerk.

Q Have you seen this email before?

A No.

Q Do you understand why it's important that Craig gets his bids into the sheet by 1:50?

A Well, it looks like Vander's canceling his bids and -- I don't know. I mean, maybe -- I'm just --

MR. HELWIG: Don't really guess. If you don't know --

A I don't know. I don't know. But

it looks like one person's pulling their bids and the other person's putting theirs in. I'm not sure, though.

MR. ULLMAN: Let's take a five-minute break. I think we're getting close. Making good progress.

MR. HELWIG: Wow, okay.

(Whereupon a recess was taken from 1:35 p.m., to 1:46 p.m., after which the following proceedings were had:)

MR. ULLMAN: We're back on the record.

Q At some point did you discover that Jefferies & Company was on the other side of one of these open positions?

A Yes.

Q How did you find that out?

A Well, I think that we knew that when we were -- as we did the trades, I think that we knew who the counterparty was. I mean, obviously technically the trades were done as EFS's, which means that, you know, at least in theory we're entering into an uncleared bilateral transaction and then converting it to a futures contract. Therefore, you logically would know your counterparty.

Q Understood. And at some point did you become aware that Jefferies sued NASDAQ and IDCG and IDCH?

A Yes.

MR. ULLMAN: Can you mark this as 12, please.

(Whereupon Exhibit No. 12 was marked for identification, MM.)

Q I'm not going to ask you to read all this because that would be a long read, but I just want you to have it for reference. I've handed you what's marked as Exhibit 12. It's Bates numbered JEF-CFTC-00000001. Have you seen this complaint before?

A I don't recall.

Q Do you know who Rich Handler is?

A Yes.

Q Who's Rich Handler?

A He's the CEO of Jefferies.

MR. ULLMAN: And can you mark this as 13, please.

(Whereupon Exhibit No. 13 was
marked for identification, MM.)

Q I've handed you what's been marked
Exhibit 13. It's Bates numbered D162862.

A Yes.

Q You'll see -- and it's an email from you
to Rich Handler. Do you see that?

A Yes.

Q And the subject says Complaint?

A Yes.

Q You'll also notice that the date is
September 20, 2011?

A Yes.

Q And if you look at Exhibit 12,
you'll notice there's a received by date and it
says September 16, 2011. This is in Exhibit 12,
the complaint I'm referring to now.

A Yes.

Q You'll see that it has it's received on
September 16, 2011.

A Okay.

Q And the subject of the email is
Complaint. Just as a summary, I take it you don't
remember drafting this email?

A I mean, I remember the email now, yeah.

Q And I know you've testified to parts of this. I just want to make sure I understand it. It appears that this is your review and analysis of this complaint. Is that a fair description?

A I think I'm just objecting to one sentence or phrase in the complaint.

Q Okay. And I guess one of the sentences would be purportedly executable bids, is that the difficulty?

A You're correct.

Q And what was your beef with that?

A Well, again, as I described in my -- you know, as I've described, the bids that we -- the bids and offers that we were putting -- that we entered into IDCG electronically were consistent with the bids that we had with the voice broker and were executable bids and bids at which we were perfectly happy to transact.

The complaint refers to an artificial pricing level created by purportedly executable bids. And I was pointing out to him that that was not accurate, that in fact those were bids at which we were willing to trade at all times and were, therefore, not at all artificial but were true reflections of where the market was.

Q And the next sentence that says, "The settlement prices derived from them were obviously not at all artificial but were instead reflective of the absence of a PAI adjustment." Do you see that?

A Yes.

Q Can you explain that sentence to me, please.

A Well, as we eventually explained in the white paper, the lack of PAI caused our models to, you know, value IDCG contracts at higher yields. And obviously, you know, our willingness to pay a higher yield was a reflection of that and the reflection of the lack of the PAI adjustment.

Q Did your models have any specific names?

A No.

Q Did you just refer to it as the IDCH model or, I mean, how would you refer to it inhouse?

A I don't know. Something like that. I'm not sure.

Q Who do you think would know that?

A I mean, I think that the white paper essentially publishes our -- you know, a framework for valuing the contracts. And, I mean, our internal model that we eventually, you know, came to after a lot of work would have been consistent with that.

Q I understand. I'm just simply asking what its name is. If it doesn't have a name, that's fine.

MR. ULLMAN: I don't have any further questions right now. Two quick things. Is there anything you want to add to the record?

MR. HELWIG: Do you want to step out or no?

MS. LEVY: Let's step out for a second.

MR. HELWIG: Did you want to do the second thing?

MR. ULLMAN: Well, the second thing is that we always leave testimony open, just so you know. Do you want to take a five-minute break?

MR. HELWIG: Yeah. I don't even know that we need five minutes.

MR. ULLMAN: Thank you.

(Whereupon a recess was taken from 1:50 p.m., to 1:52 p.m., after which the following proceedings were had:)

MR. ULLMAN: We're back on the record. I guess we left it whether the witness wants to add anything to the record.

MR. HELWIG: No, the answer's no. We have nothing else to offer.

MR. ULLMAN: Okay. We will leave the testimony open. Thank you very much for your time, Mr. Wilson. We appreciate it, and thanks everybody. We're off the record.

MR. HELWIG: Thank you for moving it along.

WHICH WERE ALL THE PROCEEDINGS HAD OR OFFERED AT SAID HEARING OF THE ABOVE-ENTITLED CAUSE.

STATE OF ILLINOIS)
) SS.
COUNTY OF C O O K)

I, MARY MASLOWSKI, CSR, do hereby certify that I reported in shorthand the proceedings had at the examination under oath aforesaid, and that the foregoing is a true, complete and accurate transcript of the proceedings at said examination under oath as appears from the stenographic notes so taken and transcribed on the 10th day of April, 2013.

Certified Shorthand Reporter

Transcript Word Index

&

&
99:13

0

00000001
100:14
00014066
15:7
084-003278
2:23

1

1
3:8 4:1 6:5 7:10,16 67:8
1:10
82:15
1:35
99:9
1:46
99:9
1:50
98:18 105:2
1:52
105:2
1:55
97:14
10
3:13 28:1,2,5,5 30:19,22 41:6,11 62:20 85:18,19,20 86:1,21 97:5,8
10:04
1:17
10:52
35:2
100
3:14
101
3:14
10744
67:14
10th
106:10
11
3:13 35:2 98:6,8,10
11:30
53:2
11:40
53:2
1100
1:16
1155
2:4
12
3:14 100:6,8,13 101:14,16
12:34
82:15
13
3:14 100:21 101:1,4
14069
83:12
15
3:9 30:19
16
101:16,20
1989
35:19
1992
8:17
1994
43:6

2

2
1:18 3:9 14:24 15:3,6,10 30:1,18,18 83:9
20
30:19 40:24,24 41:5,15,21 42:3,7 101:12
2005
35:21
2010
13:6 15:15 16:5 17:14,15 18:24 21:5 26:10 34:4,4 51:13 60:10 65:5 67:8 68:13 70:13,16 72:9 76:12 83:21 84:13 85:14
2010-2011
50:11
2011
13:6 18:24 21:5 26:11 33:24 34:18 36:9 51:13 66:19 68:16 97:13 101:12 101:16,20
2013
1:18 106:11
202
2:5,6
20581
2:5
21st
2:4
23
76:12
24
84:13
25
17:8 30:19

3

3
3:9 15:20,24 30:18 67:1,3,6 67:17 85:14
30
28:1,4 30:19,22
312
2:12
3rd
97:23

4

4
3:4,8,10 73:15,17,20 76:8 76:10
418-5420
2:5
418-6774
2:6

5

5
3:10 30:18 77:14,15,18,22 86:21 87:19,23,24 88:1,2,2 88:2,3,18,19 89:13,13,13 89:14 90:3,4,24 91:1,1 92:21,21,22
500
12:5,7
525
1:16 2:11
540
4:13

6

6
3:11 78:12,13,16 87:19 88:18,20 89:13,13 90:24 91:1 92:21,22
60661-3693
2:12
663
85:8
67
3:9
69
15:12

7

7
3:11 30:19 83:24 84:1,4 88:12,13,15,15,17 89:12 90:23 92:20 97:13
73
3:10
77
3:10
78
3:11

8

8
3:12 29:17 85:5,8 92:7
80s
43:16
84
3:11
85
3:12
89
35:19

9

9
3:12 91:23 92:2 93:2
902-5537
2:12
90s
43:15,16
91
3:12
97
3:13
98
3:13

a

a.m.
35:2,2 53:2,2 85:18,19,20 86:1
ability
7:8
able
16:17 90:7
absence
103:6
abstract
55:20
abstractly
56:1
academic
38:6
access
75:6,7
account
41:4 49:14 57:11,16 58:5 58:12 59:4 66:17 90:21 96:19
accretion
41:12
accruals
46:3
accurate
102:23 106:7
achieve
11:13 12:11

acknowledge
80:5
acknowledgment
57:2
active
31:23
activity
21:2,3,4 23:1 66:1
actual
37:23
add
57:7 81:6,20 104:12 105:6
adding
80:15
additional
32:9,14,24 47:15
address
4:12 74:4
adjust
24:18 58:11
adjusting
50:22
adjustment
50:18,20 51:2 58:1 78:4 103:6,16
advantage
36:13 42:21
affect
7:8 63:11 89:23
aforesaid
106:6
afternoon
31:24 32:15
aged
26:24
ago
72:6
agree
25:15 38:23 45:1 47:3,21 47:23 53:22
agreed
27:21 69:3
agreements
19:4,12 51:17,19 58:17 60:11 63:12
ahead
59:17
aid
30:8
alan
26:6
alignment
49:24
america
1:1 59:24
american
43:21
amount
31:8 40:19 44:7 62:5
analysis
102:4
analyzed
67:24
answer
5:8,15 6:15,15,18 47:19 66:13 68:15 70:10
answers
7:4
answer's
105:7
anybody
33:19 55:3 88:1 89:6
anytime
5:22 55:14
anyway
96:18
apologize
58:3
appear
79:14
appears
54:2 79:21 95:4 97:22 102:4 106:9
application
37:17 38:3 77:24
appreciate
32:11 105:11
approached
95:24
appropriate
90:14
april
1:18 106:10
arbitrage
42:16
armour
2:18 4:23,23
article
44:3
articulated
56:23 67:17 69:18
artificial
102:21 103:1,5
asked
8:9
asking
13:8 31:20 38:1 55:21 69:17 84:23 85:3 104:7
association
12:21 75:21
assume
9:19 13:15 68:15 80:15
assumed
72:1
assuming
45:10 46:24 61:18
assumption
41:10 72:7
assumptions
58:10
assure
54:7
attached
7:12
attempting
21:7
attention
67:14
attorney
2:2,3 7:19
august
34:4 60:10
available
26:15
avoid
24:12
aware
7:3 10:2 14:22 21:1,3,21 22:3,24 25:2 29:19 63:19 68:23 100:3

b

back
7:10 15:2 21:22 27:18 35:4 36:1 41:18,19,21 42:3,4,7 44:13 50:10,11 53:5 54:1 55:19 56:13 58:13 78:23 83:2 84:17 92:5 93:1,20 99:11 105:4
background
37:16
baffled
66:20
bank
59:24
banks
43:21 44:2 75:14
barry
14:4 16:19 19:16 58:20 59:3 84:10
based
16:23 25:6 44:17 49:20 56:6 65:22 98:2
basic
37:23
basis
22:8,11,12,17 27:13 28:9
basis (cont.)
28:11,21,23 30:16 40:17,24 40:24 41:5,15,21 42:3,7 57:8 61:8,9,13,13 86:15,19
bates
15:6 73:20 78:16 85:8 92:2 97:11 98:10 100:13 101:4
becoming
20:3
beef
102:12
beginning
74:16 79:7
behalf
2:8,14
behavior
71:14
belabor
70:4
belief
23:7 69:10
believe
9:17 10:20 15:13 17:21 20:22 30:1 34:21 49:21 50:12,14 62:17 68:24 69:1 76:18,19 79:9
believed
60:24 61:1
believes
85:1
benchmark
30:11 49:15
benefit
41:7 47:15
benefits
65:20
best
12:3 23:9 38:20 65:10
better
56:15
bias
27:23 38:7,12 43:3,10 44:7 44:17 47:11,23 48:2,3,7,9 48:14,21 49:22 50:8,13 52:6,16 53:9,17,20 54:10 54:16 55:10,17 57:8 58:1,5 58:7 59:4,9,13,19 60:18 61:9,12 62:7 63:1 76:13,19 79:16 80:5
biased
76:15,24
bid
22:12 27:5 28:10 36:15 64:16 87:19,23,24 88:1,2 88:12,13,18,20 89:13,13,13 89:14 90:24 91:1 92:21,22

bidding
22:17 26:13 27:8 28:9 86:20 88:14 90:3,23,24 92:20,21
bids
22:3,12,22 23:8 25:19 27:14 29:4,6,10,13 30:4,7 30:12,12,20 31:6,8,11,14 31:23 32:2,8,14,19 33:2,12 33:16,22 34:18 36:9 65:15 72:19 73:12 85:24 86:3 89:5,18,23 94:4 96:22 98:18,20 99:1 102:9,14,15 102:17,18,18,22,23
big
66:24 80:13
bilateral
25:12 48:20 99:22
bilaterally
17:24
bit
28:14 37:16 42:8,19 74:13 74:23 84:17 98:5
board
75:23,24
bond
41:8,13,15,22,23 42:1,5
book
67:7 84:18
borrow
42:13
borrowing
42:13
bottom
15:6 80:8,14
bought
42:6
brady
77:5,7
break
6:1 99:5 104:20
breaks
5:22
brian
13:22,24
bringing
60:14
broker
18:19,20 19:3 23:21 33:6 34:3,5,9 36:14,14 65:15 66:10 88:12,14 89:6 91:3 102:17
brokerage
37:2,3
brokered
22:15
brokers
22:23 34:20 36:2,3,10
brought
84:19,23
bunch
25:1
burghardt
43:6
business
4:12 11:8,9 61:19
buy
41:8 88:6
buying
41:16
buys
41:14

c

calculated
29:20 64:10 67:19 69:21
call
11:19 13:23 21:21 32:2 36:18,22 63:3 65:4 70:21 70:24 71:2 72:9
called
4:5 7:12 15:20 64:3 83:4
calling
70:23
calls
41:19 70:11,15 95:15
canceling
98:19
capacity
76:4
capital
12:18 77:12
care
37:6
case
33:13 41:4 43:15 48:11 49:16 51:22 57:17 61:21,22 72:11 89:1,4 96:24
cases
88:9
cash
43:20 45:21,23 46:16,16,18 46:24 47:7 52:2,13 62:24 68:21 69:1,21,24
category
26:14
cause
105:16
caused
103:12
ceo
8:14,15 11:3 77:8 100:20
certain
24:23 31:23
certainly
14:22 25:3 28:17 29:1 34:19
certified
1:13 106:15
certify
106:5
cftc
4:15 23:18 32:22 65:16 66:9 87:2,7 90:17 91:8 100:14
cftc.gov
2:6,7
chaired
76:5
challenges
16:9
chance
7:18 73:22 78:18 93:2
change
23:19 46:7,12,12 64:7 80:17 81:10,23 94:6 95:22
changed
64:6 90:7
changes
24:22 37:11 79:16 94:9
characterize
96:21
checking
41:4
chicago
1:16 2:12 30:1 82:10
chief
2:18 4:23
chomping
84:16
circular
59:7
cite
43:7
city
82:9
clarification
97:17
clarity
10:7 11:18 28:12
clear
9:21 18:6 20:24 24:4 38:10 43:9 52:1 55:3 64:21 70:5 74:3 90:10,23
cleared
10:15 47:7 48:13,16,21 49:3,10 53:7,10,12 56:5,9 57:1 62:22,23 63:7,9 72:3
cleared (cont.)
75:10
clearing
9:12 18:22 23:19 42:7 66:9
clearinghouse
9:23 10:4 25:14 41:19 66:1 66:2,21 72:4,12,17 87:6 90:12
clearinghouse's
73:2
clearly
23:13,15 60:12 87:24
clearport
18:4 64:1
clerk
98:14
client
7:19
close
24:14 29:16 30:1 52:19 61:6 73:3 85:19 87:8,23 88:11,13 95:14 99:5
closeout
95:10
closing
79:3 88:8,21 95:24
coined
62:13
collateral
45:7,15,21,22 46:5,6,14,14 47:1,1,16 49:5,5,6
collect
61:20
collectively
10:9
column
83:17
coming
18:13 30:8 71:12
commencement
4:3
commencing
1:17
comments
84:12
commingle
38:6
commission
1:2,13 2:3,9 5:2 7:14
committee
23:4 87:14
commodity
1:2,12 2:3,8 5:2 7:13
communicating
72:8

communications
55:23
company
99:13
compared
62:6
comparing
40:7,8 58:7
compete
75:14,15
complaint
100:15 101:9,17,23 102:5,7 102:20
complete
7:4 106:7
compliance
2:18 4:24
complicated
52:5 56:22
complication
56:14
complies
6:6 15:9,14 67:12 73:24 77:21 78:19 83:10 85:11 92:4,12
computed
29:24 65:22
computing
89:10
conceivable
72:11
concerned
65:17 71:8 86:4 87:2 90:17
concerted
74:14
concluded
76:22 81:7
conclusion
6:22 16:14 61:2,3
conduct
14:15
confirm
76:12
conflicted
64:17
confused
80:9
considered
14:8 69:2
considering
55:1 79:19 80:15,21
consistent
102:16 104:5
constraint
13:7
construct
16:20 18:5
consummated
33:15 72:18 73:12
cont'd
83:6
context
90:5 95:2,10 97:21
continued
26:11 36:22
contract
15:21,24 16:7,11 34:13 38:22,22 39:1,19 40:12,23 41:6,9 42:10,18 47:8,17 50:23 51:2 54:15 56:18 57:21 68:19 69:4 76:13 78:3 80:17 81:8,21,23,24 82:1 86:22 87:3,8 99:23
contracts
16:14,17 19:8 21:7 22:4 23:6,7,10,16 26:16,24 27:17,22 36:17 40:21 47:22 48:3 50:12,13,15 54:4 59:20 71:10 72:2,12,14 77:3 86:14,17 103:13 104:3
contrasting
40:8
conversation
65:8 81:3 82:6
conversations
7:19 66:7 90:2
conversely
39:23
conversion
89:16
converted
18:11 19:4
converting
99:23
convexity
27:23 37:15 38:7,8,12,21 43:2,10 44:7,17 47:11,23 48:2,3,7,9,14,21 49:22 50:7 50:8,13 52:6,16 53:9,15,17 53:20 54:10 55:10,17 56:5 57:3,8,11 58:1,5 59:4,9,13 59:19 60:17 61:9,12 62:7 63:1 76:13,14,19,24 79:16 80:5
convey
71:4,7
convinced
54:14,19,21
copied
97:15 98:13
copy
80:11
corporate
9:5 10:3,12,12,18
corporation
8:21,23
correct
15:18 17:20 18:23 19:12,13 21:2,11 26:16,17,20 29:7 31:3 34:1 35:14 39:8,9,13 39:14,17,18,21,22 40:2,3,9 47:2,10,12 48:15,17,22 49:1,2,21,23 51:20,21 53:12 56:7 59:2,20 60:4,7 62:18 68:17 70:13,18,19,21 74:4,7,8 78:6 81:4 83:12 102:11
correlated
39:2 45:2 47:22 62:15
correlation
45:4 52:10,14 58:10 62:19
corresponding
23:2 25:13 43:14 51:16 57:15
counsel
2:17 4:16,21 6:13 7:21
counted
69:9
counterparties
45:10 60:13
counterparty
45:13,15,15,24 46:1,2 95:23 99:19 100:1
county
1:15 106:2
couple
20:8 30:21 35:22 84:12
coupon
41:8,13,14,21,23 42:1,4 57:22 69:2
coupons
46:3
course
22:14 42:8 57:9 60:23 89:8 90:15 91:4
court
5:7,11
craig
13:22 14:9,15 16:19 20:14 20:15,17 97:14 98:12,18
create
30:24 38:16 50:16 57:22
created
15:19 21:11 55:14 102:21
creates
37:13 66:2
creating
67:24 78:2
csr
2:23 106:4
cumulative
42:23 51:3
currency
49:16
current
23:8,10,24
curve
23:2 24:16,24 25:1,1 26:23 26:24 27:7,8 29:24 30:7,9 30:13,14,16 31:15,16 32:10 32:24 43:3,16,18 54:16 57:23 58:2 64:14 67:20 70:2 71:16,19,22,23,24 72:2,4 73:6,13 77:3 82:2,3 85:22 94:3,3,3,13,14,15,18 94:24 96:15
curves
31:1 82:2
customer
75:8
customers
12:19
cut
80:11

d

d0000663
85:8
d0000907
98:10
d0134940
73:20
d0173672
92:2
d0190794
78:16
d162862
101:4
d559
84:6
daily
25:24 26:15,18 28:23,24 29:20 30:4,5 31:8 32:15 39:6,11,24 64:9 67:15,18 69:8,12,20 70:7 79:17 89:24 90:10,13
dan
4:14
daniel
2:2
date
41:9 52:8 78:5 83:16,17 84:13 95:6 101:11,15

dated
40:21 67:7 85:14
david
84:11
day
24:15,23 25:20 29:6,10,14 30:20 32:8 33:5,8,11 41:17 65:22 88:17 89:8 91:2 106:10
days
31:24 52:12
dc
2:5
dcm
9:17,19,24 10:10 64:17 66:14,21
dco
9:17,17,22 10:2,9
de
96:24
deal
49:9 80:13
dealer
75:14
deals
49:4
dealt
76:1
debate
56:12,21 59:19 63:10,22
debates
54:9
debited
49:14,17
december
34:4 65:4,6 70:16 72:9
decided
81:9
declined
41:23
decreases
39:12
defined
94:18
defining
96:14
definition
31:14 48:8 53:16
delved
16:9
demand
44:21
depends
44:9 48:24 52:9
deposition
3:7
derivatives
9:12 10:4
derived
103:4
describe
21:4 26:21 40:13,14 42:20 50:20 62:7,7 77:22 96:12
described
26:19 32:2 39:15 42:22 44:17,19 46:8 50:5 63:21 96:10 102:13,14
describing
26:13 78:23 92:17,19
description
102:5
desk
54:13
despite
76:13,23
details
30:2
determining
66:17
develop
16:6
developed
78:1
developing
16:10
difference
40:19 48:9 52:2 62:22,24 72:21,22 73:1
different
37:17 71:24 81:2
differential
54:20,22 62:5
differentiate
43:18 87:12
differentiator
47:6
difficult
60:6
difficulty
102:10
direct
20:6,6 32:13 65:7 67:13
directed
32:6,21
directions
32:7
directly
19:20 55:21 85:18
disagree
40:15
disclosure
67:7
discount
57:23 67:19 70:1 71:15,18 73:13
discounting
63:8
discover
99:12
discovery
88:4
discretion
90:12
discuss
76:6
discussed
26:1 75:1
discussing
25:3 44:5
discussion
34:24 45:19 57:7 82:13
discussions
23:12 26:6,8 27:6,10 28:20 54:18 60:1 61:4 63:23 65:13 66:4
disjointed
30:14 31:16
disparity
44:18
dispersed
40:12
disregarded
89:2
disregarding
96:15
disseminate
24:2 66:14
disseminated
24:4,15 31:5
distinct
46:21
distinction
27:2 50:7 96:8
divergent
23:15
diversity
32:4,17
division
2:4 4:15
document
6:7 7:11,24 73:10
documents
36:7
doing
22:19 27:15 42:15 58:5 85:2 90:16,18
dollars
45:14 49:16
donald
1:10 3:3 4:4,11 83:3
donaldwilson
74:6
doubt
68:5,6
downward
52:15,16
drafted
37:19 73:11
drafting
101:24
driven
50:18
drustrup
84:11
drw
1:5 2:14,17,18 4:22,24 8:12 8:16,18,21,22 9:1,2,4,7,9 10:12,15,17,18,19,22,22 11:1,4,7,15,19,20,22 12:1,2 12:8,12,14,20 13:18 15:15 15:19 16:24,24 17:3,7,10 17:17 18:21 19:14 21:11 31:23 34:12,17 36:8 37:19 58:19 59:5,19 60:10 63:10 68:20 75:12 76:8 93:8 94:18,22 96:22 97:1
drwholdings.com
74:6
drw's
13:11 19:1 26:19 55:22 60:18 64:10
due
60:20
dullman
2:6
duly
4:5
dumb
62:9
duration
23:16 42:14,17
duties
11:7
dynamic
40:9
dynamics
40:9

e

earlier
20:22 21:6 29:5 44:19 48:13 49:20 50:14 58:15 60:5,23 64:12 65:12 67:8 70:11 74:23 85:21 86:4 90:1

early
26:11 43:15,16
earn
41:12
earned
47:1
earns
49:6
easier
11:20
economic
64:7
economically
64:5
edge
62:9
effect
38:8 42:24 43:19 50:8 51:3 53:15 56:6 57:3,12 60:2,2 62:11,12,13,13 63:2,3,4,11 64:7
effective
83:16,16
effects
63:4 98:4
effort
74:14
efs
18:4,6
efs's
99:20
either
21:14 45:21
elaborate
79:19
elect
41:3
electronic
24:3,5,8 34:18 36:2,14 86:3
electronically
33:23 36:9 66:15 70:18 89:18,23 90:20 96:23 102:16
email
74:1,4,9 76:11 78:20,22 79:4 83:15 84:8,10,11,16 84:21 85:12 93:5,7,11,15 95:8 97:13,18,21,23 98:11 98:15 101:6,22,24 102:1
emails
38:11
embed
51:1
embedded
78:3
emphasize
33:2 86:13
employ
13:18
employed
8:9
employees
11:15,21,24 12:2,7,11 14:19 37:19
employer
8:11
enabled
88:21
encourage
11:12 12:10
enforcement
2:4 4:15
ensure
87:21
ensuring
87:7 88:5
enter
37:13 62:20
entered
31:12 68:20 102:16
entering
96:23 99:22
enters
57:4 60:10
entirely
71:23
entities
9:10 12:20
entitled
105:16
entity
9:5 10:3,12,19 12:23 16:24 17:3
equal
40:16 49:15
equally
40:12
equivalent
16:18 22:9 56:11 58:8 61:7 64:5
eris
16:6,11,24 17:4,6,11,13 77:8,13
especially
31:24 40:20
essentially
10:1 30:8 34:10 41:12 42:10,15 51:3 59:9 63:5 75:7 78:3 91:21 98:4 104:2
establish
15:16 90:12
established
17:13,17 21:10 68:4
establishing
16:3
estimate
12:3 58:6
eurodollar
23:4 35:17,20 38:21 40:23 41:5,9,18 42:10 43:3,13,16 43:23 44:1 51:15 54:23 57:13,14,21 58:7,11 75:1,4 75:15 87:13
eurodollars
21:19 28:3 55:16,17
eventually
22:10,16 24:1 44:3 103:11 104:4
everybody
88:18 91:3 95:19 105:12
everyone's
37:15
exactly
9:3 19:23 22:13 40:18 64:23 65:5 92:19 94:16
examination
1:10 3:2 4:3,7 83:6 106:6,8
examined
4:6 83:5
example
62:16
excerpt
67:6
exchange
10:1 16:6 17:1,4,6,11,13 18:7,7 22:21,24 23:6,22 24:1,6 26:22 30:8 60:7 65:17 71:9 72:3 86:6,8,13 86:14,21,22 87:3 89:9 90:18,21 91:6,18
exchanged
46:6
exchange's
64:20 66:5 68:11
excited
36:17
executable
102:9,18,22
exhibit
3:7 4:1 6:5 7:10,16 14:24 15:3,6,10 67:1,3,6,17 73:17 73:20 77:15,18,22 78:13,16 83:9 84:1,4 85:5,8 91:23 92:2,6,7 93:2 95:6 97:5,8 98:6,8,10 100:8,13 101:1,4 101:14,16
exhibits
15:1
exist
8:23 48:4
existed
16:8 55:9
existence
63:20
existing
79:3 80:16
exists
9:5
expect
35:9 56:10
expected
6:15 12:17 16:16 22:18 35:7,8 42:23 50:17 60:24 61:5,15,16,20,24 85:2
experience
57:10
experienced
55:11
expert
37:21
expiration
41:9
explain
6:19 35:6 50:3 62:10 103:9
explained
32:22 103:11
expo
81:14
extend
42:17
extensive
54:8,18
extent
44:6 54:22
extra
42:4,8

f

facilitate
24:8
fact
23:1 33:6,11 37:1 40:15 43:15 54:9 56:15 61:5 63:20 65:13 66:20 71:9 76:14,23 86:5,8,8,13 102:23
facto
96:24
factored
70:7
factors
71:18

factor's
70:1
facts
88:10
failing
23:11
failure
23:13,14 66:5
fair
30:9 44:16 68:9 78:11 86:10 88:24 90:13 91:20 93:24 94:6 95:19 96:21 98:1 102:5
fall
66:19 70:13
falls
39:8,24
familiar
14:1 49:9
favor
45:13 73:21
favorable
42:5
favorite
37:15
fcm
19:1
february
31:22 97:13,23
federal
8:2
feel
84:4
felt
56:13
fia
75:17,22,23,24 81:13
figure
27:16 28:6 54:8 60:9,15 86:12 93:16 95:2
figuring
93:18
fill
73:13
financial
12:15 57:5
find
36:15 73:8 80:20 99:16
fine
12:3 28:18,20 80:12 96:7 104:9
finish
5:13,14 96:4
finishing
52:19
firm
12:14 42:7
firms
18:22 75:12
firm's
12:18
first
4:5 5:6 13:4 17:16 36:8 43:8 53:17 66:8 68:11 70:20 71:13 74:13 78:22 84:5,6
five
22:17 52:18 57:7 99:4 104:19,22
fixed
16:16,21 21:7 50:15 57:4 59:5 61:1,6 63:5 68:21 69:24
flip
15:12
flipside
42:9
floating
68:21 70:1
flow
52:13 69:11 84:19
flows
43:20 45:7 47:8 52:2 62:24 67:20 68:19,21 69:1,5,9,21 69:24
fluctuation
91:15
focus
11:16
following
35:3 53:3 82:16 99:10 105:3
follows
4:6 83:5
followup
53:6 64:24 97:22
followups
35:5
force
76:14,24
forced
80:16 92:14
forcing
80:6
foregoing
106:7
forgot
92:6
forgotten
22:13
form
8:17 45:21,22 46:1
format
97:10
formula
27:12
forth
27:18 93:20
forward
51:17,19 57:19,22 58:2
forwards
84:11
four
15:13 22:17
frame
13:5,15,19 14:18
framework
44:4 97:24 98:3 104:2
frankly
60:2 66:11
fras
51:20
free
42:16 61:14 62:4 84:4
french
44:1
frequently
33:8
front
69:18
frustrated
66:18
full
7:4 9:15 67:7 76:13
fully
74:15
functional
74:15
funds
39:20
further
6:23 80:1 82:6 83:5 104:10
future
18:7,11 44:9
futures
1:2,12 2:3,9 5:2 7:14 10:1 12:21 15:21 16:7,11 19:5 21:15,17,18,19 25:9,14,19 26:16 38:22 39:10,19 40:21 40:23 41:5,9,18 42:10,18 43:3,13,23 44:1,22 46:21 46:21 47:8,17,21 50:23 51:2,16 52:7 57:13,14,21 58:8,12,18 60:12 63:12 64:6 65:21 69:4 72:16 75:2 75:4,15,21 78:3 99:23
futurization
63:23 64:1,2 76:1
futurized
75:11

g

galen
43:5
garry
26:2,5,7 65:2 66:18 70:12 72:9 78:24 79:1 81:1,15 90:2,3,5,19
garry's
26:3
gas
62:17,21,23 63:6,6,8
general
2:17 4:21 27:6,9 28:19 37:9 68:18 74:22
generally
10:7 11:8,11 20:5 21:3 27:11 37:21 45:16,20,23 51:15 52:11 57:14 61:16
generate
40:10 64:22
generated
46:23 47:15 57:20 63:22 70:2 71:19 95:9,9
generating
58:2
generation
71:15
getting
42:2,3 99:5
give
5:17 6:10 7:4 67:10 73:21 73:22 77:18 78:17 83:15 84:4 85:8 92:2,10 93:2
given
1:11 6:23 63:5 87:17
giving
34:19 62:9
glean
7:24
go
5:4,6 28:19,20 34:22 36:1 41:18,19,22 44:23 45:17 52:17 55:19 58:13 59:17 66:8 73:7 82:11 83:2 88:13 90:6 92:5 93:1
goes
45:13
going
10:7,22 11:19 28:6,15 37:2 37:3 40:18 41:16 42:19 44:10 50:10,11 81:5 83:15 89:15 93:10 100:10

good
4:14 84:19 92:23 99:6
grab
83:8
granted
78:6,7
granularity
30:6,15
graphically
32:23
graphs
32:23
great
29:18
greater
31:19 32:19 52:12
ground
5:5
group
9:12 77:12
guess
44:20 51:5 56:20 59:14 63:19 64:15 69:7,8,19 72:1 76:17 77:1 81:7,9 82:4 89:16,20 93:9 98:22 102:8 105:5
guys
36:19,20 61:13 62:3

h

ha
61:13,14 62:4
half
17:9,16 84:6
halfway
7:11
handed
100:13 101:3
handing
15:5 67:5 73:19 78:15 84:3 85:7 92:1 97:7
handler
100:17,19 101:7
handling
82:4
happen
6:1 32:22
happened
9:19
happens
43:12
happy
29:14 33:5,13 37:24 95:5 102:19
head
50:24 51:6,11,12 54:6 59:23 97:3
hearing
105:15
hedge
21:7 27:20 28:13 93:20 94:10
hedged
16:21 21:13 91:12
hedger
61:21 62:2
hedging
50:16 94:7 95:21
held
81:15
help
19:3 73:13 89:17
helped
91:21
helwig
2:11 4:19,19 11:16 12:3 52:21 79:9,12,21 80:10 98:22 99:7 104:13,15,21 105:7,13
hey
36:19,22 41:20 62:3 88:14 93:22 95:16,18
high
62:3
higher
22:9 23:2 27:22 28:4,5 41:17 43:13,24 51:16 56:10 57:14 88:20 103:13,15
highlight
86:8
highlighting
98:3
highlights
43:6
highly
38:23 39:2 45:1 47:22
hilton
81:15
hit
36:15
hmm
71:20 74:19 77:6 80:19 83:18
holdings
8:12,16,18,21 9:1 10:17 12:1,2,4
hope
90:15
hopefully
5:5
hotel
81:14
hour
1:17
housed
11:24

i

idcg
9:16 10:8 15:6 16:8,12,14 16:16,21 21:7 23:11,12,16 23:17 24:16 27:21 30:24 36:17,18,19,20,21,23 37:8 37:10 50:11,15,19 54:10,15 61:1,6 64:10 76:11 79:1 85:18 94:2,13,18 96:14,15 96:18 100:3 102:16 103:13
idcg's
24:24 56:17
idch
10:13,15,19 13:12,12,16,19 14:16,17,20,23 15:16 19:1 19:6,8,10 21:2,11,21,23 22:3,3 25:8,20,24 26:16 27:3 29:6 30:3 31:7 32:14 32:18 33:16 34:12 36:10 50:11 55:22 58:14 59:20 67:6 68:1,19,24 69:2 70:12 73:11,11 80:20 83:11 100:4 103:20
idch's
67:24 71:15
identification
4:2 15:4 67:4 73:18 77:16 78:14 84:2 85:6 91:24 97:6 98:7 100:9 101:2
identify
4:17 78:20 84:8 93:5
idex
15:20 70:2 71:19,22,24 72:2
ignore
79:15
ii
2:2
illinois
1:15,17 2:12 106:1
imagine
52:4
immediately
94:8
implied
39:7,12 40:1 57:18,20
important
5:8 7:24 47:6 87:12 91:7,8 91:10 98:17
inaccurate
86:24
inaccurately
86:14,16
included
60:18 68:24 69:12
including
12:4
inconsistent
72:15
increase
32:1 39:11
increased
30:6
increases
39:23 40:1
incremental
42:19
independent
80:7
indicate
97:12
indicated
79:18
indication
24:12
indifferent
37:5
indirect
27:1
individual
19:17
industry
75:21
influence
24:14
information
7:13,23 24:7 71:4 78:23 81:11
inherent
42:21 44:18
inhouse
103:21
initially
22:7 23:17 27:24 28:8 54:21 64:13 81:8,15
initiatives
74:15
inject
89:17,23 90:20
injecting
70:17
input
24:24
insert
32:24
instance
62:15 86:20

instances
87:15
institutions
56:13
instruct
30:3
instructed
29:5
instruction
5:9,15 6:2,16,20 7:1
instructions
31:7
instructs
6:14
instrument
15:19 42:14 57:6 65:19 66:22
instruments
59:11,12 65:23,23 96:16,20
instrument's
66:23
intended
37:23
interactions
27:3
interest
15:21 16:7,10 21:18 23:16 39:2,7,12 40:1 41:12,15,18 43:14,17 44:23 45:1,2,9,23 45:24 46:14,16,23 47:2,11 47:22 48:6,13,16 49:6,10 49:14,15,18,24 50:4 53:7 53:10,13 56:5,9 57:2,20 59:6 62:15,20,21,22 73:5 74:24 75:4,10 78:2 80:16
interested
13:5,11 37:8 84:5 87:7
interface
10:19
interfaced
10:13
interfacing
58:24
internal
55:22,23 59:19 63:10 104:4
internally
27:19,21 28:12 54:9,24 59:24 61:4
international
9:11 10:4
interrupt
59:16
intuitively
63:19 94:8
invention
78:1
inverted
39:6
invest
39:20 40:5 41:2,3
investigation
8:2
investigative
6:10
investment
42:24
investments
1:5 2:14 9:2,4 10:15,22 11:4,17,19,22 12:8,12 13:1
investor
17:11
investors
12:19
involved
14:5,22 18:12,14 19:11,15 19:17 25:3 26:6 28:17 58:22 65:7
involvement
16:3
irish
81:14
isda
45:20
issue
44:24
issues
76:1
item
88:5,24
iteration
67:8
iterations
9:1,7 37:18 38:5 95:4
iterative
78:10 98:4

j

jack
98:12
january
33:24 34:18 36:9 89:20,21
jef
100:14
jefferies
99:13 100:3,20
job
5:17 11:7 14:7 73:3
joined
77:13
jr
1:11 3:3 4:4 83:3
july
76:12
junior
4:11

k

katten
2:10 4:20
katz
18:16 19:3,7 22:15,23 36:16 37:8 58:24 60:14 84:19,23
keep
24:17,22 91:11
kept
90:6
kevin
20:19
kind
11:11 24:19 29:3,22 37:11 42:16,24 43:22 44:4 53:6 54:20 58:9 59:7 63:19 68:7 75:6,11 77:11 88:13 91:16 98:1
kinks
25:2 30:10
knew
91:3 99:17,19
know
5:19 9:11,16 11:1,11,13 12:24 13:23 14:4 16:15,20 17:8 18:16 20:1,6 21:15,17 22:6,8,11,13,16,20 23:15 24:13,18,20 27:16,19,24 28:2,4,8,12,14,18,18,18,19 28:21 29:11,22,23 30:17,21 31:10,21 33:9,11 34:8,9,16 34:17 35:9,22 36:21 37:4,6 37:7,7,9,11 38:15 40:16,20 42:13 43:22 44:3,3,6,8 46:3 48:4 49:7,24 51:15,22 52:14 53:8 54:2,11,17,18 54:19,23 55:2,10,11 56:11 57:1 58:9 59:3 60:16,16,17 60:23 61:1,3,5,19 63:22,23 64:15,15,17 67:23 68:3,9 70:9 71:24 72:6 74:23 75:6 75:10,14,17 76:17,21,23 77:2,9 78:9,10 81:8,16,17 81:19 84:23 85:3,16,20,22 86:7 87:11,12,16 88:4,12 88:18,23 90:4,10,19,20 91:18,21 92:20 93:14,17,19 93:21,21,24 94:5,20 95:3,7 95:14,15,17,21 96:6 97:24 98:2,20,23,24,24 99:21,24 100:17 102:2,14 103:13,14 103:22,24 104:2,4,19,21
knowledge
44:18
known
43:2
knows
89:9
kroeger
20:19

l

labeled
15:6
lack
27:23 28:12 50:18 63:8,9 65:24 103:12,16
large
56:13 87:16
largest
75:3
late
26:10 43:16 83:20
launch
81:10 82:1
launched
55:16 56:18 81:8
lch
9:18
lch.clearnet
49:7,22
lead
58:18
learned
71:14
leave
44:22 104:18 105:9
left
105:5
leg
69:24
letter
92:8
letters
32:21
level
22:21 102:21
levels
27:5
levy
2:17 4:21,21 104:14
libor
94:3,13
license
2:23
lifted
72:20
limit
13:4

line
20:6
liquid
38:23
liquidity
12:15 55:5
listed
9:8 13:12,16,19 15:16 22:4 25:19 30:19 34:13
little
28:14 37:16 42:3,8,19 55:5 74:13,23 98:4
llc
1:5 2:14 8:12,21 9:1,3,4 10:16,17,22 11:4,17,17
llcs
11:6
llp
2:10 4:20
logically
99:24
london
35:22
long
8:15 36:17 39:10,16,20 40:11,18 42:9 72:6 87:20 91:2 100:11
longer
31:2 32:4 40:21 42:14 52:7
longs
53:20 57:11
look
6:4 7:10 12:16 15:7 67:10 68:8 73:22 77:18,19 78:17 78:18 83:15 84:4 85:9 101:14
looked
16:13 61:11 68:3,11 88:3
looking
16:9 38:11 47:19 59:11
looks
25:12 79:5 98:11,19 99:1
loss
42:19
lot
7:23 27:18 87:14 104:5
lots
9:9 23:5 54:23 93:20,21
lower
28:3,4 41:17 53:21 88:19
luckily
72:23
luitgaren
13:24 14:11 20:11 21:24 98:11
lunch
82:14

m

madison
4:13
maintain
32:8
majority
12:9 13:3
making
48:12 96:9 99:5
man
51:8
management
23:12
manager
11:5,7
managers
14:8
manipulate
88:24
manner
27:1 63:21 88:21 94:6
manual
24:17
manually
24:18
marcus
18:16 19:3,7 22:15,23 36:16 37:8 58:24 60:13
margin
39:16 40:4 41:1 43:1 46:22 46:22 48:24 49:4,6,13,18 53:13 56:6 68:24 69:5,11 70:6 79:17
mark
14:24 67:1 73:15 78:12 79:16 83:23 100:6,21
marked
3:7 4:1 6:4 15:4,5 67:4,5 73:18,20 77:16,18 78:14,15 83:9 84:2,3 85:6,7 91:24 92:1 97:6,7 98:7 100:9,13 101:2,3
market
23:9,10,14,21,24 24:19,20 29:2 33:6,9 37:12,14 41:10 43:2,12 44:9,18 48:2,5 55:4 56:12 57:16 58:7 59:10 61:17,18,22 65:15 66:1,11 71:14 73:4 75:3,5,5,7,12,13 79:16 86:11 87:16,18,19,22 88:9,21 89:2,6 90:14,24 91:1,10,14 92:21 103:2
marketplace
71:11 87:5,10
markets
12:15 61:17 65:21 72:16 75:4
market's
92:22
marking
98:8
mary
1:13 106:4
maslowski
1:13 106:4
massive
91:13
matches
41:8 42:18
material
40:21 80:17
matter
1:4 6:24 72:17 91:4
matters
45:12
matures
41:6
maturity
52:8
mean
9:9,22,24 11:1,9,11 12:4 14:21 18:12 20:5,8 21:18 27:6,15 28:6,19,24 29:14 30:15,17 31:10,18 33:9,21 36:24 37:1,4,5,9 38:8 40:15 43:10 44:7,20 47:18 48:4,8 50:22 52:9 54:2 55:13 57:9 57:24 58:6 59:7 60:13,20 61:17 63:14 68:21 69:4,23 70:2 71:17,17 72:1,21,22 73:2,7 74:2 76:5 81:7,13,17 81:22 85:3 87:1,5 88:23 90:1,17 91:12,14,16 93:17 94:8 95:17 97:19 98:20 99:19 102:1 103:20 104:1,3
meaning
10:9
meaningful
63:3
means
35:7,8 38:17 70:9 76:16 96:8 99:21
measured
67:21
mechanism
50:19
mechanisms
50:21
medication
7:7
meeting
80:22 81:11
members
23:19 66:10
memory
36:8
mendeloff
14:4,12 20:15 21:24
mentioned
35:12
merely
24:13 61:18
met
4:15
method
78:2
methodology
50:5 79:2
mid
83:20
midday
29:23
middle
25:15
midmorning
85:21
million
45:14
mind
24:17 50:6 91:12
minute
44:22 99:4 104:19
minutes
52:19 104:22
missed
51:5
misspeak
53:8
mm
4:2 15:4 67:4 73:18 77:16 78:14 84:2 85:6 91:24 97:6 98:7 100:9 101:2
model
27:17,20 58:9 93:19 103:20 104:4
modeling
98:2
models
103:12,17
modest
75:6
modify
47:3
monday
97:13

money
35:9 40:19 41:1,2,4 61:14 62:4,5
monroe
1:16 2:11
month
15:20,24 17:15
morning
4:14 29:17,23
morons
61:13
mouth
20:23 32:12 36:4
move
24:19 41:11 57:18 63:5,7 79:16 85:18 86:1
moved
24:19 29:2 91:14
movement
40:17
movements
40:11 52:13
moves
40:17
moving
25:4 91:18 105:13
muchin
2:10 4:20

n

n.w.
2:4
name
4:9 8:20 9:15 10:3 15:18,19 20:20 26:3 104:8,8
names
13:21 103:17
nasdaq
9:20 100:3
national
12:21
native
97:10
natural
62:17,21,23 63:6,6,8
neal
77:5,7
near
16:17
necessarily
18:14 28:24 52:17 55:12 68:7 71:22
need
15:2 41:20 42:17 57:24 66:8 74:14,17 81:16 90:22 95:21 104:22
needed
23:18 70:10
negotiate
53:21 57:5,6
negotiated
17:24
negotiating
19:15 57:1 58:16 59:5 60:12
negotiation
18:10 19:17 57:4
negotiations
19:11 57:10 60:18
negotiators
58:19
net
62:10,12
new
55:5,9,13,14 60:6,7 82:1 94:17 96:8,18,20,23
newedge
18:20,22,24 37:13
newedge's
18:21
night
49:14
nodding
96:5
nomenclature
17:21 38:2,7
non
76:14,24
nonpartners
20:7
notary
1:14
note
15:1 84:13
notes
106:9
notice
83:19 101:11,15
notwithstanding
90:11
novated
25:13
november
65:5 70:16 72:9 80:22 85:14
npv
62:13 63:4,11
number
27:13 31:11 32:2 40:16 52:12 65:13 66:4 90:2 97:11
numbered
78:16 98:10 100:14 101:4
numeral
67:15
nymex
64:5

o

oath
1:10 106:6,9
object
6:14
objecting
102:6
objective
12:13
objectives
11:12,14 12:11
obtained
78:24
obvious
54:3 94:9 98:5
obviously
23:22 31:13 56:18 61:10,20 66:1 76:22 99:19 103:5,14
occur
69:3
occurred
26:9 82:9
o'clock
1:17 29:17 30:1
o'connor
26:4,5,7 65:2 66:18 70:12 70:17 71:5 72:9 78:24 79:1 81:1 90:2
october
35:19
offer
13:6 64:16 105:8
offered
105:15
offers
23:8 25:19 32:8 33:3,12 34:12,20 73:12 85:18,24 86:3 92:14 102:15
office
56:13 78:23
officer
2:18 4:24
official
8:2
oftentimes
38:8
oh
18:1 20:15 34:7 57:7
ois
49:17
okay
13:5,6,12 14:3 21:24 22:1 27:3 28:18,20 31:11,17 32:13 38:12,13,18,19 40:7 41:13 43:4 47:5 52:20,21 59:8 60:22 63:16 67:16 74:12 80:3 82:4 83:13 84:7 87:19 90:21 93:1 94:21 95:13,23 96:4,12 98:9 99:7 101:21 102:8 105:9
old
94:13 96:7,14,17,18,21
ones
14:6 54:12
ongoing
80:3
open
15:16,19 17:17,20 18:11 19:6 21:10 25:14 26:19 28:22 45:12 58:14,18 60:11 60:18 64:10 67:24 68:4 73:5 75:12 80:16 95:11 99:14 104:18 105:10
opinion
52:6
opportunities
12:16
opportunity
6:23 7:20 37:13 75:13
opposed
11:20 20:7
opposite
42:11
option
23:4 35:20 87:13
options
35:17 75:4,16
orally
5:9
order
23:9,20 24:12,14 58:12 87:21 88:11 91:15
orders
34:19
original
17:10 18:10 19:4
originally
17:24
otc
16:18 21:14,15 22:9 23:2 23:16 27:8 30:13,16 37:12 43:14 45:8 47:10,13,14 48:6 50:16 53:14 54:16 57:15,19 58:8 61:7 62:6,21 63:6 64:13 71:14,23 72:4 77:3 91:13 94:15,24

outside
12:19
overall
18:13 19:10
overnight
42:13
oversee
11:8,9
oversees
14:9
oversight
14:18,21
owned
9:20 10:16 17:7
owner
16:24 17:4
ownership
46:11,12
owns
46:22 47:1

p

p&l
28:22 91:15,17
p.m.
82:15,15 97:14 99:9,9 105:2,2
page
15:12 67:14 76:7 83:12 84:6
pages
15:13
pai
27:23 50:18,21 51:4 56:8 56:14,16,19 63:9 78:4 79:17 80:15,21 81:6,9,10 81:12,20,24 82:1,3,3,7 103:6,12,16
paid
16:21 49:17 50:4 61:8,9 62:6
panels
75:22 76:5,6
paper
37:18 43:5 54:4 95:5 103:12 104:1
papers
38:4,6
par
41:13
paragraph
80:4 92:10
parentheses
76:23
part
7:16 10:18 20:7 29:13 33:7 35:21,24 69:1 88:4 89:22
part (cont.)
92:13,15 94:1,2,17
partially
79:6
participant
86:11 87:16,20
participants
4:17 61:17,18,22 75:3 88:10,22
participate
75:13
particular
67:13
particularly
84:5
parties
45:7 69:3
partner
19:22,22 20:4,17
partners
20:5,9 77:10
parts
38:3 102:2
party
24:7 46:13,15,16,22,24 49:13,17
pass
29:23
passing
77:17
paste
80:11
pat
4:21
patent
37:17 38:3 39:5 77:24 78:6
patricia
2:17
patronizing
37:23 38:16
pay
21:7 22:11 23:1 37:2,3 45:24 86:7,23 88:16 89:12 91:2,19,21 94:22 103:14
paying
16:16 22:8 50:15 59:5 61:1 61:6 62:3
payments
51:4 69:1,2 70:7
pays
46:16
pending
5:24
people
11:12 16:13 25:23 43:18,19 44:4 55:17 56:13 73:8
people (cont.)
76:19 82:2 87:9 93:8 97:15
perceive
38:14
percent
17:8
percentage
17:6
perception
95:19
perfectly
102:19
period
13:8 14:14 18:24 19:19 20:10 21:1,20 22:2 25:8 27:4 29:21 32:1,15 33:4 41:13 50:10 64:12 76:18
periodic
69:2
periods
29:12,19 30:4,6 31:9,22 32:10
permission
23:18 66:9
person
19:14 42:9 70:23
persons
7:12,20
person's
99:1,2
perspective
37:1
phase
93:22
philosophy
95:18
phone
65:4 70:11,15,21,24 71:2 72:8 81:2
phrase
102:7
pit
23:4 35:13,20 87:13 89:12
place
19:24 45:11 53:17 62:14 64:1
planning
81:6
platform
24:3,5,8,9
plausible
71:23
please
4:10,18 5:13,19 6:4 7:10 15:1 20:20 44:13 67:2 73:16 75:20 77:23 78:12,16
please (cont.)
78:21 83:9 84:9 85:8 89:14 90:3 92:2,7,11 93:6 100:7 100:22 103:10
plus
42:3
point
6:1 8:1 15:15 19:14 20:24 22:9 28:9 40:17 41:5 61:8,9 61:13 63:24 64:18 68:13 69:8 86:2,5 95:3,23 99:12 100:2
pointing
102:22
points
22:11,12,17 24:16,23,24 27:13 28:11,21 30:7,11,16 30:21,24 31:5,15 32:9,24 40:24,24 41:16,21 42:3,7 57:8 61:14
poor
66:13
portfolio
16:20 29:1,2 42:17 50:17 94:7,10
portion
44:14
pose
5:20
poses
94:5
position
8:13 25:9 39:10 40:22 45:12,13 51:10 55:2 56:17 83:11 87:17 89:5
positions
15:16,20 16:4 17:17,20 18:11 19:5,6 21:10 25:14 26:20 28:22 58:14,18 60:12 60:19 61:19 63:13 64:10 67:24 68:4,20 81:16,18,20 83:20 91:11 95:11 99:14
positive
12:17 16:16 22:18 35:6,8 45:4 50:17 60:24 61:5,15 61:15,20,23 85:2
possession
46:6,11
possible
5:6 23:9 33:10 73:4 87:8
posted
46:24
posting
46:13,24 47:16 49:5 64:19
potential
57:3,11

potentially
73:12
preceding
90:11
precipitous
32:1
predecessor
8:19,20
predicted
47:9
present
62:10,12
presumably
41:16,22 85:1
pretty
13:1 22:14 43:17 54:17,19 90:10
prevent
31:16
previous
58:23
previously
83:4,8
price
23:24 24:22 25:24 26:18 29:20 39:1,7,11,24 40:11 41:17,24 42:5 48:2 49:24 54:3 55:15 57:6,10 63:5 64:9 65:18,19 66:22,23 67:15,18 69:9,13,21 70:8 86:22,23,24 87:4,4,9 88:4,6 88:7,8,24 89:1,3,24 90:7,11 90:13 91:19,20 92:22 93:23 95:10,14 98:2
prices
22:21 23:7,14,20,21,23 24:2,4,6,11,13,15,15,18 25:4 29:15,15 30:21 33:4 33:14 34:10,10,14,21 43:13 59:11 64:19,21 65:14,21,23 66:6,10,14,16,17 71:10 72:13 73:3 76:15 77:1 86:5 86:6,9 89:10,11 90:19 91:2 91:5,9 94:21 96:16,19 103:4
pricing
54:20 58:9 102:21
primarily
21:14 26:7 79:2
primary
58:21 65:20
prior
4:2
priority
76:10
probably
12:24 32:23 41:7 43:8 88:24 96:17 98:14
problem
42:11 66:24 90:16 96:17
procedure
95:21
proceedings
35:3 53:3 82:16 99:10 105:3,14 106:5,8
process
23:5,19 24:9,17 25:10 58:22 88:4 89:15 90:9 93:18
processes
24:11
produced
97:10
product
55:8,9 60:6 64:4
products
13:12,16,19 14:16,17 15:16 16:22 21:2,8,16,17,18 25:19 35:23 36:11 62:14
profit
42:1,8
profits
40:10
progress
99:6
promoted
19:22
promoter
19:7
pronounced
52:7
properly
25:8
proprietary
12:14
provide
12:15 72:13 73:3 75:12
providing
7:12
proxy
57:22
pub
81:14
public
1:14
publication
78:5
published
44:4 85:22
publishes
104:2
publishing
73:6
pull
24:21 68:8
pulled
29:12
pulling
99:1
purchased
9:18
purportedly
102:9,21
purposes
10:6,21 11:18
pursuant
1:11 6:10 50:4
put
12:16 20:23 22:7 29:6,10 29:15 30:4,7,23 32:12,14 32:18 33:10 34:12 36:4 43:24 44:8 48:5 55:1 83:20 88:11 89:5 90:4,19
puts
87:5
putting
22:3 24:9,13 25:4 31:14 34:11 36:8,10 61:19,22 85:24 86:3 96:22 99:2 102:15

q

quantitative
50:24 51:6,11,12 97:3
quants
27:19 54:21 59:24
question
5:14,17,20,24 6:15,18 8:9 12:12 46:20 47:13 58:4 60:20 69:6,15 76:20 80:3 95:20 96:4,7
questions
6:14 13:14 15:8 16:23 25:6 37:20,22,24 38:15 47:10 53:7 55:20,21,24 64:24 67:11 72:24 77:20 85:10 92:7 104:11
quick
73:21 78:17 85:9 92:3,11 93:3 104:11
quickly
5:6
quite
26:21 52:4 54:21 66:11
quiz
10:6
quoted
80:8
quotes
24:9 26:22 79:22
quoting
16:13 79:23,24

r

ran
54:13
range
88:8,21
rate
15:21 16:7,10 21:18 23:17 39:7,12 40:1 43:14,17 44:24 45:1,9,23 47:11 48:7 48:14,16 49:10,15,15,19 51:17,19 53:7,10,13,21 56:5,9 57:2 59:5 61:7 62:21 62:23 74:24 75:5,10 78:2
rates
39:2 41:15,18 45:2 47:23 57:19,20,22 59:6 62:15,20 71:15
ray
4:11
read
35:11 37:16,17 38:5 44:12 44:15 46:20 71:18 73:21 78:17 85:9 90:9 92:3,11 93:3,13 95:7 100:10,11
reading
54:4 69:23 97:20
ready
36:21 77:19 85:9
reality
84:18
realize
37:21
really
16:8 18:12 24:20 28:11 34:7 37:6 41:7 43:18,19 44:8 54:14 55:18 61:2 62:9 63:17,18,20,24 64:3 69:5 72:16 76:10 98:22
reason
7:3 29:15 51:23,24 53:21 55:10 69:16 89:22
recall
14:6 17:5,22 19:21 68:2,12 71:1,3 73:14 74:2 82:8 96:1 96:3 100:16
receive
39:16 46:14 49:18 73:10
received
49:13 101:15,19
receives
40:4

receiving
46:22 73:14
recess
35:1 53:1 82:14 99:8 105:1
recipients
77:5
recollection
17:23 65:10 74:13 93:11
record
4:9,18 9:14 34:22,24 35:4 38:16 44:14 45:17,19 50:3 75:20 77:23 78:21 79:21 82:11,13 83:2 84:9 93:6 95:8 97:9,12,16 99:11 104:12 105:4,6,12
record's
9:21 18:6 38:10 52:1 74:3
redacted
79:6,10
refer
10:7,22 15:24 103:19,20
reference
83:14 100:12
referred
51:20
referring
19:5 21:23 26:19 43:11 74:20 85:16 101:17
refers
102:20
reflect
22:22 23:8,9,13,14,23 65:14,18 66:5,10,22 72:2 72:14 86:6 87:4 90:7
reflected
23:20 24:5 71:10 86:10 91:5,9
reflecting
92:22
reflection
65:24 90:14 94:23 103:15 103:16
reflections
103:2
reflective
30:9 89:2 103:6
reflects
51:3 94:4,21
refresh
74:12
refuse
6:18,19
regarding
6:24
regardless
72:4 73:5 77:3
regime
94:13,18 96:8,8,14,17,18 96:18,20,22,23
registered
12:21
reinvestment
43:1
related
9:9 14:16
relates
53:10 93:16
relating
12:8
relationship
18:21 39:6
relative
10:2 14:17
relevant
18:24 19:19 20:10 21:1,20 22:2 25:8 29:21 32:10 50:10
remember
9:3,4 13:21 14:7 17:15 19:23 20:2 26:8 27:9 30:2 33:19 34:15 54:11 64:23 65:3,5 68:14 72:7 74:9,10 81:12 93:12 97:19 101:24 102:1
rephrase
49:7
report
19:20 20:8,9,11,13,18 83:11
reported
1:13 106:5
reporter
1:14 5:7,12 106:15
reporting
20:4,6
represent
15:23 87:24 88:20 89:14 95:3
represented
33:6
representing
88:7
request
5:23,24
requested
44:15
required
23:23
requires
8:5
research
50:24 51:11,13
respect
60:20
response
25:7
responsibilities
14:19
responsible
19:10
restriction
5:23
result
43:10,11 44:16 61:3 63:1 91:17
resulted
30:14
results
43:1,9
retained
89:17
retaining
89:22
retrospect
54:3
review
7:18,20 28:22 73:23 102:4
rich
100:17,19 101:7
right
10:5 15:22 17:10 26:5 40:6 40:8 43:17 48:23 53:18 54:15 59:21 60:3,8 72:18 72:19 74:17 79:23 86:18 89:17 94:19 95:1 96:10 104:11
rights
46:3
rise
40:24 41:5
risen
41:24
rises
39:7,12
risk
42:12,15 66:2 87:6,6
road
89:17,23
rob
2:18
robert
4:23
role
14:14
roman
67:14
room
4:17
rosenman
2:10 4:20
routinely
33:12
rule
64:16 67:7 69:18
rules
1:12 5:5 24:3 67:9,24 68:4 68:11 90:6
runs
78:23

s

sam
78:22 79:24
saw
32:23
saying
28:17 59:14,18 66:8 90:6 94:16,21
says
41:20 71:18 76:8,10,12 79:15 84:16 85:17 92:13 93:15 94:12,17 95:16 101:9 101:16 103:3
screen
26:23 33:3,7,17,20,21 34:11,20 37:4 64:17,20 91:4
second
5:11 8:5 13:11 15:7 21:22 25:18 26:14 34:23 45:18 67:10 79:4 82:12 92:10 94:17 104:14,15,17
seconds
88:11
section
35:6 52:20 94:12
securities
45:22 46:1,4,17
seeing
74:2 84:17,19
seen
6:7 15:10 38:11 74:1 84:20 85:12 97:18 98:15 100:14
sell
22:19 41:22,24 88:1,2
selling
43:24
send
41:20 85:18
sends
42:7 45:15 46:15
senior
2:2 14:10 23:12 54:11
sense
23:22 29:1 60:21 66:11,12

sense (cont.)
70:3 81:23 90:8 91:22
sentence
74:14,18,20 76:15 79:4 90:11 102:6 103:3,9
sentences
102:8
separate
69:11
september
60:10 67:8 83:21 84:13 101:12,16,20
series
13:14 47:9 70:11 83:20
serve
75:22
set
11:11 67:9 88:10
settle
23:20,23 76:14,24 77:2 80:6 87:22 88:3,15 90:4 92:14 94:13,18
settled
23:7 26:24 87:8 88:19
settlement
22:21 23:4,19 24:6,11,14 25:1,24 26:18 29:20 30:4,6 30:23 31:9,24 32:10,15 33:4 39:7,11,24 51:1 64:9 65:14,21 66:17 67:15,18 69:8,12,20 70:7 72:13 73:3 86:5,24 87:14 89:10,15,24 90:9,10,13 103:4
settlements
64:22 91:6,18
settles
23:6 85:19 86:1,21 88:6 94:3
settling
65:18 66:21 71:9 86:9,14 86:16,22 87:3 94:2 96:15
shaking
54:6
sheet
98:18
short
39:23 40:4,10,18,22,22 42:21
shorthand
1:14 106:5,15
shorts
53:21
show
36:7 95:5
showing
22:22 65:15
siddiqui
2:3 5:1,1
side
44:2 57:4 61:11 63:2,3 99:13
sided
34:14,21
sides
45:8
significance
20:3 85:20
significant
19:7 91:15,17
silberberg
13:22 14:9,15 16:19 19:19 21:24 71:2,5 97:14 98:12
silly
12:12
similar
18:4,5 23:16 28:2 75:1
similarly
53:13
simple
58:4
simplify
45:11
simply
104:7
sir
10:23
sit
29:9 50:6 64:8 69:19 93:13
sits
69:18
situation
39:15
sky
89:17,23
slightly
42:5 47:4 58:12
sloping
52:15,16
small
77:11
smaller
54:22
sobba
26:6
sold
42:4
sole
90:12
solution
50:23 71:12
somebody
29:16 40:22 48:4 62:2,8
somebody (cont.)
93:22 95:15
somebody's
61:21
somewhat
28:14
sophia
2:3 5:1
sorry
45:18 51:5,10 59:15 69:14 93:1 96:2
sort
25:18 26:14 42:20 44:18 47:15 55:20,24 63:2
sound
13:24
sounds
10:5 15:22
speak
25:23
speaking
26:2 78:24
specific
10:3 17:3 27:12 31:7 37:20 56:20 93:10 96:6 103:17
specifically
11:10,21 54:11 58:13 67:23 68:10 71:13 80:24
specificity
30:16
specifies
45:20,23
specs
81:24
spell
20:20
spent
16:8 23:3,5 24:10 35:21,22 63:18 87:13
spread
27:7 87:17,19,22 88:2 90:4
squares
79:7,14 80:9,10
ss
106:1
ssiddiqui
2:7
stage
78:9,10
standing
23:3 87:13
stands
25:15
start
8:8 38:20,21
started
5:4 8:18,19 22:8 26:10 28:9 33:24 34:17 36:8,18 43:22 64:19
state
1:15 4:9 9:14 106:1
statement
6:24 7:12,20 40:16 47:3,24 48:17 79:19 86:15,19 89:1
states
1:1
stenographic
106:9
step
54:1 104:13,14
stephenson
78:22
stone
77:9,10
story
90:5
strange
81:17
strategy
18:13 19:10
street
1:16 2:4,11
strike
87:17
strip
28:3 54:23
structure
37:12 52:10,11,14,15
studied
16:12
stuff
28:6 29:3 33:11 54:24
stupidest
8:8
subject
6:24 93:14 97:16 101:9,22
submitting
33:22
subpoena
6:10
subsidiaries
12:5
subsidiary
10:16
suckers
84:20,24
sued
100:3
suggested
65:1 66:7,13 70:17

suggestion
24:13 64:20
suite
1:16
summarize
44:10 47:20
summary
46:20 53:8 55:19 101:23
summer
16:5
supplant
71:14
supply
44:21
suppose
33:9 57:15 93:22
supposed
72:16
sure
4:19 7:23 9:18 13:1,2 20:24 22:14 25:7 32:5,9,13 33:18 36:3,5 38:9,17 45:5 47:18 47:20 48:12 52:5 56:2 64:14 68:22 69:17 70:5 74:11 80:7 89:8 95:8 99:2 102:3 103:23
swap
15:21 16:7,10 18:7,8,10 19:4,12 23:2 24:24 25:12 27:7,8 30:13 43:14,17 47:7 49:3,4 53:13,14 54:13,16 55:11 56:5 57:19 58:17 61:7 62:6,21,23 63:7,8,12 64:13 71:23 72:4 78:2 84:18 94:3,13,15,24 96:15
swapclear
9:18 56:8,9,16
swapdrop
25:10 60:11
swapdropped
17:21 58:17
swaps
16:18 21:14,15 22:9 23:17 37:12 44:24 45:1,8,9 46:21 46:23 47:7,11,14,14 48:7 48:14,16,21 49:10,22 50:16 53:7,11 56:9,11 57:2,15 58:8 64:3 74:24 75:5,10 76:1 91:13
sworn
4:6 83:5
system
66:3 86:4 87:6

t

tail
91:14
tails
30:17,19 31:2,4 32:4,18,19
taken
35:1 53:1 66:16 82:14 99:8 105:1 106:10
talk
21:23 29:4 37:20 38:21 44:24 53:9 67:9
talked
54:12 59:23 64:11 73:11
talking
5:12 26:15 59:15 62:16 67:19,20 68:10 72:19 74:16 79:1 94:11 97:23
technically
11:5,23 99:20
ted
2:11 4:19
tell
8:5 16:3 17:3 22:6 27:4 31:20 32:18 37:24 45:6 53:9,24 56:4 65:11 69:10 69:16 74:21 75:19 76:11,15 81:5 97:20
tended
31:2
tenors
32:3
tentative
28:15
term
52:10,11,14,15 63:15
terminal
51:1
terms
20:4 30:15 32:4,17 36:15 55:21,22 57:6 58:16 60:11 69:8,12,21 75:24
testified
4:6 12:10 19:9 20:22 25:11 29:5 48:13,19 52:3 53:16 56:4,21 58:14 60:5 70:11 70:17 83:5 102:2
testify
7:8
testimony
5:7 6:11,22 7:1,5 10:8,21 13:3 35:12 36:2,6 44:19 49:20 58:24 104:18 105:10
text
93:10
thank
5:3 18:9 57:18 95:1 104:23
thank (cont.)
105:10,13
thanks
105:11
theirs
99:2
theme
74:22
theoretical
94:5,5,19
theory
43:23 75:9 99:21
thing
27:21 38:9 55:13,14 59:7 68:7 87:2 88:18 91:22 92:24 104:16,17
things
8:1 11:12,13 13:4 23:20,23 62:4 66:6 70:18 73:1,9 86:9 91:16 93:19 95:12 104:11
thing's
94:23
think
9:2 11:19,23 12:17 17:8 19:9 21:14 25:10 26:3 29:5 35:11 37:10,18 39:5 44:21 47:14 48:1,13 53:15,23,24 55:12,18 56:3 58:14,20 59:22 60:5 63:14,21 64:11 64:22 66:12 70:12,16 71:21 78:7 84:22 85:17 87:11 93:24 95:6,9,12 97:9 99:5 99:17,18 102:6 103:24 104:1
thinking
23:5 24:11 38:11 44:5 54:24 63:18 98:1
third
24:7 77:9,9
thirds
76:7
thought
16:15 18:3 22:18 28:13 37:10 38:20 43:19 48:19 61:14,15,23 62:3,8 91:20 96:10
three
14:19 22:12,17 28:21
threshold
25:6 45:11
tian
98:12
time
6:13,13 13:1,5,7,8,15,19 14:14,18 16:8,8 18:19 19:21 20:10 22:10 23:5
time (cont.)
27:4,18 29:19 30:1 31:22 33:5,14 35:13,23 52:7,17 54:7 55:12 56:12 62:8 63:18 64:12,23 66:12 68:23 70:20 71:13 72:6 77:1 87:15 89:7,9 105:11
times
33:10 34:14,15,21 102:24
timing
27:13 29:4
titles
14:7
today
6:9 7:3 28:21 29:10 50:6 54:13 64:8 69:19 72:24 93:14 95:7
told
23:17 71:5 80:22,24 90:5
tool
58:2
top
15:13 43:17 54:15 77:3
topic
37:16 76:6
touched
74:23
trade
12:18 18:14 22:20 27:22 28:2,10 29:14,16 33:5,13 33:16 34:9 35:16 36:19,20 36:21 37:2,3,6,6 43:23 44:2 51:16 54:15 56:10 57:14 59:12 61:11 73:8 79:3 82:2 84:20,24 88:22 89:7,7,11 92:23 102:24
traded
33:19 59:12 72:3,15 77:4
trader
54:13 59:23
traders
13:18 19:16 21:1,22,23 22:3 25:3 27:3 29:6 30:3 31:7 32:14,18 54:12 55:11 57:20 58:21 68:3,8 85:24
trades
10:14 12:16 19:1,18 22:7 22:13,15 27:16 43:24 61:23 72:18 73:13 85:2,4 99:18 99:20
trading
1:2,12 2:3,9 5:2 7:14 8:22 12:14,16 13:11 14:15,19,23 16:18 18:13 22:10,24 35:13 35:23 36:18 61:7 62:1,2 65:19,24 66:6,23 71:11

trading (cont.)
84:18 87:5 94:23 96:16,20
traditional
25:12,18 37:12
transact
87:9 102:19
transaction
46:7 99:22
transactions
18:4
transcribe
5:12
transcribed
5:8 106:10
transcript
106:8
transition
64:4
treasuries
46:2
treasury
21:19
treated
49:1
treats
49:3 53:13 56:6
trial
2:2,3
trick
55:24
tried
22:11
true
103:2 106:7
truly
42:16
truth
8:6
try
11:12 44:10
trying
27:16 28:6 32:11 36:4,15 38:16 54:8 56:1 60:9,15 86:12 88:23 89:4,12 93:15 95:2
turned
25:13 58:17 63:12
turns
94:7
type
13:7 60:17 87:1
types
21:17 50:20
typical
31:21

u

u.s.
1:12 2:3,8
ullman
2:2 3:4 4:8,14,16 5:3 11:18 12:6 14:24 34:22 35:4 44:12 45:17 52:18 53:5 67:1 73:15 77:14 78:12 79:6,11,13 80:2,12 82:11 83:2,7,23 97:9 99:4,11 100:6,21 104:10,17,23 105:4,9
ultimately
14:21
um
71:20 74:19 77:6 80:19 83:18
uncertainty
55:14,15
uncleared
44:23 45:1 47:6,10,14 48:6 49:4 51:17 53:14 56:11 99:22
underlying
57:9
understand
5:9,15,18,18,20 6:2,9,16,19 7:1 8:2,6 10:8,23 13:8,16 16:1 21:9 25:7 27:2 32:5,13 36:3,5 38:4,10,17 47:20 48:12 50:7 52:5 55:22 56:1 56:2 69:5,7,17 76:11 96:13 98:17 102:3 104:7
understanding
25:20 29:9 38:22 39:4 45:6 48:20 57:19,23 64:9 67:18 68:18 69:14,20 70:6 77:2 85:23
understood
27:2 28:16 33:1,15 46:5,13 48:6,10 55:4 58:13 100:2
unfortunately
72:23
united
1:1
unnecessary
56:14
unreasonable
48:1
unwind
93:23,23 94:1 98:1,2
usd
15:20
use
12:17 38:7 57:21 58:1,8 64:18
uses
73:12

v

value
12:17 16:16 22:19 23:15 27:17,20 30:9 35:7,8 39:11 39:24 50:17 51:2 60:24 61:5,15,16,20,24 62:10,12 63:6,7 65:22 69:24 79:16 85:3 88:17 91:9,20 93:19 93:24 95:19 98:1 103:13
valued
68:19 69:22
values
23:10 72:14 73:4 86:10 94:6
valuing
69:12 104:3
vander
13:22,23,24 14:11 16:19 19:16 20:10 58:21 59:3 70:23 71:5 84:10,16 98:11
vander's
98:19
vanilla
25:12 44:23,23 45:8,8
variance
91:17
variation
39:16 40:4 41:1 43:1 46:22 48:24 49:3,5,13,18 53:13 56:6 68:24 69:4,11 70:6 79:17
variety
24:16 32:19
vendors
24:7
venture
77:11
venues
37:11 56:15
version
63:9
versus
36:2,14 47:16 68:21 96:8
virtually
38:5
voice
34:3,5,9,20 36:2,10,14 89:6 91:3 96:22 102:17
volatile
24:21 29:12 33:9
volatility
44:9 52:11,15 58:10
volume
31:6,8,10,18,19
voluntarily
1:11

w

wait
5:13,14
want
5:4,22 8:1 11:16 13:4 20:23 20:23 25:7 32:5,12 36:1,5 36:23 37:20 38:9,14 42:16 44:23 47:20 52:5 53:9 67:9 69:17 70:4,5 80:7 81:18 86:12 89:8 95:16 100:12 102:3 104:12,13,15,19
wanted
16:12 22:19 28:10 29:16 48:18 81:10 86:7 88:1 91:5 91:11,17
wants
39:20 89:6 93:22 105:5
washington
2:5
ways
25:9
week
31:22
weird
25:2 30:10
went
35:20
west
1:16 2:11 4:13
we've
37:16 54:12 75:1 85:2,3
white
37:18 38:3 54:4 95:5 103:12 104:1
wholly
10:16
willing
23:1 34:9 73:8 86:7,23 87:9 88:6,16 89:11 91:2,19,21 92:23 94:22 102:24
willingness
103:14
wilson
1:11 3:3 4:4,11 73:19 77:17 83:3 105:11
window
26:12 64:23 89:9
windows
30:23 31:15
winter
70:13
wish
6:24

witness
2:14 3:2 4:5 6:6 15:9,14 67:12 73:24 77:21 78:19 83:4,10 85:11 92:4,12 97:15 105:5
woman
51:8,9
word
32:3 40:8
words
20:23 32:12 36:4 41:23 53:19 94:22
work
11:15 12:7 16:12 61:17 72:16 104:5
worked
13:19 16:19
working
16:6 50:24 71:11 77:12
works
16:11
worth
28:13
wow
99:7
writes
93:9
writing
74:10
written
24:8 43:5 76:12
wrong
32:3 48:20 56:4 79:11
wrote
43:8

y

yeah
11:18 12:4 14:10 18:2,3 28:18 29:11,22 32:20 34:14 34:19 37:1 51:7 62:12 75:23 77:11 79:12 80:12,12 90:1 92:9 94:15,20 95:12 102:1 104:21
year
20:1 28:1,1,2,4,5,5 30:18 30:19,22,22 62:20 64:5
years
23:3 24:11 35:18,22 41:6 41:11 74:17 75:3 87:13
yep
93:4
yield
22:9 27:22 41:17,22 43:13 43:24 58:11 59:13 62:4,5 103:15
yields
23:2 40:23 51:16 56:10 57:14 72:2 103:13
yu
51:7 78:1 93:7 97:1,13
yuhua
51:7 78:1 93:7

z

zero
41:8,13,14,21,23,24 42:4 45:11 57:22

U.S. COMMODITY FUTURES TRADING COMMISSION
Three Lafayette Centre
1155 21st Street, N.W., Washington, D.C. 20581
Telephone: (202) 418-5000

Division of
Enforcement

JASON MAHONEY
TRIAL ATTORNEY
(202) 418-5289 DIRECT
jmahoney@cftc.gov

February 14, 2013

VIA EMAIL
Donald Wilson,
c/o Ted Helwig
Katten Muchin Rosenman LLP
525 W. Monroe Street
Chicago, IL 60661-3693
ted.helwig@kattenlaw.com

EXHIBIT I.D.
PENGAD 800-631-6989
1
4.2.13 mm

Re: DRW Investments, LLC

Dear Mr. Helwig:

Enclosed is a subpoena issued to Donald Wilson by the Division of Enforcement of the U.S. Commodity Futures Trading Commission ("CFTC") in connection with an ongoing investigation. The subpoena requires Mr. Wilson to appear and testify before the CFTC, located at 525 West Monroe Street, Suite 1100, Chicago, IL 60661, on April 2, 2013 at 10:00 A.M., and will continue from day to day until completed.

Enclosed for your reference is a document entitled *Statement to Persons Providing Information About Themselves to the Commodity Futures Trading Commission.* This document explains some of Mr. Wilson's rights and sets forth the routine uses that can be made of the information provided in response to this subpoena.

If you have any questions, I can be reached at (202) 418-5289

Sincerely,

Jason Mahoney, Esq.

cc: A. Daniel Ullman, II

Enclosures:

1. *Statement to Persons Providing Information About Themselves to the Commodity Futures Trading Commission*

U.S. COMMODITY FUTURES TRADING COMMISSION
Three Lafayette Centre
1155 21st Street, N.W., Washington, D.C. 20581
Telephone: (202) 418-5000

SUBPOENA

TO: Donald Wilson,
c/o Ted Helwig
Katten Muchin Rosenman LLP
525 W. Monroe Street
Chicago, IL 60661-3693
ted.helwig@kattenlaw.com

YOU ARE HEREBY COMMANDED to appear before Joan Manley, A. Daniel Ullman II, Jason Mahoney, Sophia Siddiqui, Jordon Grimm and other officers of the U.S. Commodity Futures Trading Commission ("CFTC"), located at 525 West Monroe Street, Suite 1100, Chicago, IL 60661, on April 2, 2013, at 10:00 A.M, to give testimony under oath, in the matter of:

DRW Investments, LLC

****

FAILURE TO COMPLY WITH THIS SUBPOENA MAY RESULT IN THE COMMENCEMENT OF A LEGAL ACTION IN THE UNITED STATES DISTRICT COURT TO COMPEL COMPLIANCE WITH THE REQUIREMENTS HEREOF.

****

Issued on February 14, 2013, in Washington, D.C. by:

Jason Mahoney, Esq.

NOTICE TO WITNESS: Fees and mileage need not be tendered to the witness upon service of a subpoena issued on behalf of an officer or employee of the CFTC. 28 U.S.C. § 1825.

RETURN OF SERVICE

In the Case of Service upon a Natural Person:

[ ] handing it to the person named herein.

[ ] leaving it at the person's office with the following person in charge:

____

[ ] leaving it at the person's office in the following conspicuous place:

____

[ ] leaving it at the person's usual place of abode, street address:

____

[ ] mailing by certified or registered mail to the following address:

____

[ ] mailing by Federal Express to the following address:

____

[x] the following method by which actual notice was given:

Delivering by electronic mail, by agreement of counsel, to the following address:

Ted Helwig
Katten Muchin Rosenman LLP
525 W. Monroe Street
Chicago, IL 60661-3693
ted.helwig@kattenlaw.com

In the Case of Service upon Other Than a Natural Person:

[ ] handing it to the following registered agent for service or other officer, director or agent in charge of such office (name and title):

____

[ ] mailing by certified or registered mail to the entity's following agent or representative:

____

[ ] mailing by UPS to the following address:

____

[] the following method by which actual notice was given:

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct and that I served this subpoena in accordance with the method noted above.

Dated: February 14, 2013

Jason Mahoney, Esq.

U.S. COMMODITY FUTURES TRADING COMMISSION
WASHINGTON, D.C. 20581

Statement to Persons Providing Information about Themselves to the Commodity Futures Trading Commission

This document sets forth your legal rights and responsibilities as a person requested to supply information about yourself voluntarily, as a person with recordkeeping obligations under the Commodity Exchange Act or CFTC regulations, or as a person directed to provide sworn testimony or produce documents pursuant to a subpoena of the Commodity Futures Trading Commission ("Commission" or "CFTC"). When applicable, this statement also provides important information about the deposition process for persons providing testimony. Unless stated otherwise, the information below applies whether you are providing information voluntarily, pursuant to the recordkeeping obligations of a registrant, or pursuant to subpoena.

FALSE STATEMENTS AND DOCUMENTS

Any person who knowingly and willfully makes false or fraudulent statements, whether under oath or otherwise, or who falsifies, conceals or covers up a material fact, or submits any false writing or document, knowing it to contain false, fictitious or fraudulent information, is subject to the criminal penalties set forth in 18 U.S.C. § 1001, which include imprisonment of not more than five years, imposition of a substantial fine under the Federal Sentencing Guidelines, or both.

It shall also be unlawful for any person to make any false or misleading statement of a material fact to the Commission, including in any registration application or any report filed with the Commission under this Act, or any other information relating to a swap, or a contract of sale of a commodity, in interstate commerce, or for future delivery on or subject to the rules of any registered entity, or to omit to state in any such statement any material fact that is necessary to make any statement of a material fact made not misleading in any material respect, if the person knew, or reasonably should have known, the statement to be false or misleading, as set forth in Section 6(c)(2) of the Commodity Exchange Act, 7 U.S.C. § 9(2).

PRIVACY ACT

To restrict unauthorized dissemination of personal information, the Privacy Act of 1974, 5 U.S.C. § 552a, limits an agency's ability to disclose such information.[1] Under the Privacy Act, the Commission may disclose protected information as follows: when the individual to whom the record pertains consents in writing; when officers and employees of the Commission need the record to perform their duties; when required by the terms of the Freedom of Information Act, 5 U.S.C. § 552; or when disclosure is for a "routine use" (i.e., one compatible with the purpose for which the information was collected).

[1] Individuals should refer to the full text of the Privacy Act, 5 U.S.C. § 552a, to the Commission's rules, 17 C.F.R. § 146, and the CFTC's compilation of System of Record Notices, 76 Fed. Reg. 5974 (Feb. 2, 2011), for a complete list of authorized disclosures and coverage of the Act. Only those disclosures arising most frequently are mentioned in this document.

The Privacy Act also requires that, in certain situations, individuals requested to provide information about themselves receive notice of the following:

1. AUTHORITY FOR SOLICITATION OF INFORMATION.

a. Recordkeeping for Registered Persons. Sections 4f, 4g and 4n of the Commodity Exchange Act, 7 U.S.C. §§ 6f, 6g, 6n, and Commission Rules 1.12, 1.18, 1.31, 1.33, 1.34, 1.35, 1.37, 1.55, 3.12, 4.23, 4.33, 32.7 and 33.7, 17 C.F.R. §§ 1.12, 1.18, 1.31, 1.33, 1.34,1.35, 1.37, 1.55, 3.12, 4.23, 4.33, 32.7, 33.7, require Registered Persons to keep records and reports of transactions and positions in commodities for future delivery on any board of trade in the United States or elsewhere. Registered Persons must also keep books and records pertaining to such transactions (including daily trading records, customer records, and information concerning volume of trading) in the form and manner and for such period of time required by the Commission. All such books and records must be made available for inspection by any representative of the Commission or the Department of Justice.

b. Recordkeeping for Members of a Registered Entity. Commission Rules 1.31, 1.35 and 1.37, 17 C.F.R. §§ 1.31, 1.35, 1.37, require Members of a Registered Entity to keep records and reports of transactions and positions in commodities for future delivery and options on any board of trade in the United States or elsewhere, as well as cash commodities. Members of a Registered Entity must also keep books and records pertaining to such transactions (including daily trading records, customer records, and information concerning volume of trading) in the form and manner and for such period of time required by the Commission. All such books and records must be made available for inspection upon request by any representative of the Commission or the Department of Justice. Commission Rule 1.40, 17 C.F.R. § 1.40, requires each Member of a Registered Entity to furnish to the Commission certain reports concerning crop or market information or conditions that affect or tend to affect the price of any commodity.

c. Recordkeeping for Large Traders. Section 4i of the Commodity Exchange Act, 7 U.S.C. § 6i, and Commission Rules 1.31 and 18.05, 17 C.F.R. §§ 1.31, 18.05, require Large Traders to keep books and records showing, among other things, all details concerning all positions and transactions in the commodity, and in its products and by-products, whether executed through a contract for future delivery, an option contract or a cash contract, and whether such contract is executed through a board of trade, an exempt contract, an exempt commercial market, an exempt board of trade, a foreign board of trade or an over-the-counter transaction. All such books and records, and pertinent information concerning the underlying positions, transactions or activities, must be made available for inspection in a form acceptable to the Commission upon request by any representative of the Commission.

d. Investigations. Sections 6(c) and 8(a) of the Commodity Exchange Act, 7 U.S.C. §§ 9, 12(a), and Commission Rule 11.2, 17 C.F.R. § 11.2, authorize the Commission to conduct investigations. In the course of any investigation or proceeding, the Commission or an officer designated by the Commission may administer oaths and affirmations, subpoena witnesses, compel their attendance, take evidence, require production of documents, and secure voluntary statements or submissions.

e. Whistleblowers. Section 23 of the Commodity Exchange Act, 7 U.S.C. § 26, and Commission Rule 165, 17 C.F.R. § 165, authorize the Commission to obtain information from persons seeking to participate in the Commission's whistleblower program. Commission staff may request information from prospective whistleblowers to determine whether a tip or complaint relates to a violation of the Commodity Exchange Act, to further an investigation into any such violation, and/or to determine whether the person submitting the information is eligible to participate in the program. The Commission will not disclose information that could reasonably be expected to reveal the identity of a whistleblower, except under the circumstances described in Commission Rule 165.4, 17 C.F.R. § 165.4, and Section 23(h)(2) of the Commodity Exchange Act, 7 U.S.C. § 26(h)(2).

2. PURPOSE OF SOLICITATION OF INFORMATION. The Commission's principal purpose in soliciting information from you is to determine whether any person has violated, is violating, or is about to violate the Commodity Exchange Act or the rules and regulations thereunder. In certain circumstances, the Commission may be obtaining information at the behest of a foreign futures authority under Section 12(f) of the Commodity Exchange Act, 7 U.S.C. § 16(f).

3. EFFECT OF NOT SUPPLYING INFORMATION.

a. Persons Directed to Provide Testimony or Produce Documents Pursuant to Subpoena. Disclosure of information to the Commission is mandatory, subject to the valid assertion of any legal right or privilege you might have. If you fail to comply with the subpoena, the Commission may seek a court order requiring you to do so. If the Commission obtains such an order and you thereafter fail to supply the information, you may be subject to civil and/or criminal sanctions for contempt.

b. Persons Requested to Provide Information Voluntarily. There are no direct effects or sanctions for failing to provide any or all of the requested information. If you do provide information, however, you should note the sanctions for false statements and documents described above.

c. Registered Persons. Disclosure of requested books or records is mandatory pursuant to the provisions listed in paragraph 1.a. above. Failure to submit or make available for inspection the requested information constitutes a violation of the Commodity Exchange Act and Commission Regulations and may result in any or all of the following under Sections 6(c), 6(d) or 6c of the Commodity Exchange Act, 7 U.S.C. §§ 9, 13b, 13a-1, 15:

1) Institution of an action by the Commission to enjoin such a violation or enforce compliance;

2) Upon proper showing, granting of a temporary or permanent injunction or restraining order without bond;

3) Upon application by the Commission, issuance of writs of mandamus or orders offering like relief commanding compliance with the Commodity Exchange Act;

4) Imposition of a civil penalty of not more than the greater of $140,000 or triple the monetary gain to the person for each violation;

5) At the request of Commission, institution of an action by the Attorney General;

6) Prohibition of trading on, or subject to the rules of, a registered entity and require all registered entities to refuse the person all privileges;

7) Suspension or revocation of registration with the Commission;

8) Required payment of restitution to customers for damages proximately caused by violations;

9) Entry of a cease and desist order;

10) Imposition of a restraining order prohibiting you from destroying, altering or disposing of, or refusing to allow authorized representatives of the Commission to inspect, when and as requested, such books, records or other documents; and

11) Imposition of a restraining order prohibiting you from withdrawing, transferring, removing, dissipating or disposing of any funds, assets or other property.

d. Whistleblowers. Failure to provide information requested by Commission staff in relation to a whistleblower submission may affect your ability to receive a whistleblower award, or the potential amount of an award.

4. ROUTINE USES OF INFORMATION. The Commission often makes its files available to other governmental agencies, particularly United States Attorneys and state prosecutors. There is a likelihood that information supplied by you will be made available to such agencies where appropriate. Whether or not the Commission makes its files available to other governmental agencies is, in general, a confidential matter between the Commission and such other government agencies. Information which you provide may be used in the routine operation of the Commission, which includes law enforcement, review of legislative and regulatory proposals, regulation of the commodity futures markets, and review of reports and documents filed with the Commission.

Specific routine uses include the following:[2]

a. Information may be used by the Commission in any administrative proceeding before the Commission, in any injunctive action authorized under the Commodity Exchange Act, or in any other action or proceeding in which the Commission or its staff participates as a party or the Commission participates as amicus curiae.

b. Information may be disclosed to the Department of Justice, the Securities and Exchange Commission, the United States Postal Service, the Internal Revenue Service, the Department of Agriculture, the Office of Personnel Management, and to other Federal, state, local, territorial or tribal law enforcement or regulatory agencies for use in meeting their statutory and regulatory requirements.

[2] See CFTC compilation of System of Record Notices, including routine uses, at 76 Fed. Reg. 5974 (Feb. 2, 2011).

c. Information may be given to any "registered entity," as defined in Section 1a(29) of the Commodity Exchange Act, 7 U.S.C. § 1a(29), if the Commission has reason to believe that such information will assist the registered entity in carrying out its responsibilities under the Act. Information may also be given to any registered futures association registered under Section 17 of the Commodity Exchange Act, 7 U.S.C. § 21, (e.g., the National Futures Association) to assist it in carrying out its self-regulatory responsibilities under the Act, and to any national securities exchange or national securities association registered with the Securities and Exchange Commission to assist those organizations in carrying out their self-regulatory responsibilities under the Securities Exchange Act of 1934, 15 U.S.C. § 78a et seq.

d. At the discretion of the Commission staff, information may be given or shown to anyone during the course of a Commission investigation if the staff has reason to believe that the person to whom it is disclosed may have further information about the matters discussed therein, and those matters appear relevant to the subject of the investigation.

e. Information may be included in a public report issued by the Commission following an investigation, to the extent that this is authorized under section 8 of the Commodity Exchange Act, 7 U.S.C. § 12. Section 8 authorizes publication of such reports but contains restrictions on the publication of certain types of sensitive business information developed during an investigation. In certain contexts, some of this information might be considered personal in nature.

f. Information may be disclosed to a Federal agency in response to its request in connection with the hiring or retention of an employee, the issuance of a security clearance, the reporting of an investigation of an employee, the letting of a contract or the issuance of a license, or a grant or other benefit by the requesting agency, to the extent that the information may be relevant to the requesting agency's decision on the matter.

g. Information may be disclosed to a prospective employer in response to its request in connection with the hiring or retention of an employee, to the extent that the information is believed to be relevant to the prospective employer's decision in the matter.

h. Information may be disclosed to any person, pursuant to Section 12(a) of the Commodity Exchange Act, 7 U.S.C. § 16(a), when disclosure will further the policies of that Act or of other provisions of law. Section 12(a) authorizes the Commission to cooperate with various other government authorities or with "any person."

i. Where information, either alone or in conjunction with other information indicates a violation or potential violation of law – criminal, civil or regulatory in nature – the relevant information may be disclosed to the appropriate Federal, state, local, territorial, tribal or foreign law enforcement authority or other appropriate entity charged with the responsibility for investigating or prosecuting such violation or charged with enforcing or implementing such law.

j. Information may be disclosed to the General Services Administration, or the National Archives and Records Administration, for the purpose of records management inspections conducted under the authority of 44 U.S.C. §§ 2904 and 2906.

k. Information may be disclosed to foreign law enforcement, investigatory or administrative authorities in order to comply with requirements set forth in international arrangements, such as memoranda of understanding.

l. Information may be disclosed to contractors, grantees, volunteers, experts, students and others performing or working on a contract, service, grant, cooperative agreement or job for the Federal government when necessary to accomplish an agency function.

m. Information may be disclosed to the Merit Systems Protection Board, including the Office of Special Counsel, for the purpose of litigation, including administrative proceedings, appeals, special studies of the civil service and other merit systems.

n. Information may be disclosed to the Department of Justice or in a proceeding before a court, adjudicative body or other administrative body which the agency is authorized to appear, when:

i. the agency, or any component thereof; or

ii. any employee of the agency in his or her official capacity; or

iii. any employee of the agency in his or her official capacity where the Department of Justice or the agency has agreed to represent the employee; or

iv. the United States, when the agency determines that litigation is likely to affect the agency or any of its components;

is a party to litigation or has an interest in such litigation, and the use of such records by the Department of Justice or the agency is deemed by the agency to be relevant and necessary to the litigation; provided, however, that in each case it has been determined that the disclosure is compatible with the purpose for which the records were collected.

o. Information may be disclosed to a Member of Congress or staff acting upon the Member's behalf when the Member or staff requests the information on behalf of, or at the request of, the individual who is the subject of the record.

p. Information related to any traders or the amount or quantity of any commodity purchased or sold by such traders may be disclosed to any committee of either House of Congress upon its request, acting within the scope of its jurisdiction, pursuant to the Commodity Exchange Act, including Section 8(e) of such Act, 7 U.S.C. § 12(e), and the rules and regulations promulgated thereunder.

q. Information may be disclosed to another Federal agency, to a court or a party in litigation before a court or in an administrative proceeding being conducted by a Federal agency, when the Government is a party to the judicial or administrative proceeding.

r. Information may be disclosed to appropriate agencies, entities and individuals when:

i. the Commission suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised;

ii. the Commission has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the Commission or another agency or entity) that rely upon the compromised information; and

iii. the disclosure made to such agencies, entities, and individuals is reasonably necessary to assist in connection with the Commission's efforts to respond to the suspected or confirmed compromise and prevent, minimize or remedy such harm.

FREEDOM OF INFORMATION ACT

The Freedom of Information Act, 5 U.S.C. § 552 ("FOIA"), and the Commission's rules pursuant thereto, 17 C.F.R. § 145, generally provide for disclosure of information to the public, unless information falls within a specified exemption. Commission Rule 145.9, 17 C.F.R. § 145.9, establishes the procedure by which you may request that certain sensitive information not be disclosed pursuant to a FOIA request.

INFORMAL PROCEDURE RELATING TO THE RECOMMENDATION OF ENFORCEMENT PROCEEDINGS

As a result of facts gathered in an investigation, the Division of Enforcement may decide to propose an enforcement action against one or more individuals. Under the Informal Procedure Relating to the Recommendation of Enforcement Proceedings,[3] the Division of Enforcement, in its discretion, may inform persons to be named in such actions of the nature of the allegations pertaining to them. The Division may also, in its discretion, advise such persons that they may submit a written statement before the consideration by the Commission of any staff recommendation for the commencement of the proceeding. Unless otherwise provided, such written statements must be submitted within 14 days after persons are informed by the Division of Enforcement of the nature of the allegations pertaining to them.

SMALL BUSINESS REGULATORY AND ENFORCEMENT FAIRNESS ACT

Your comments are important. If you wish to comment on the enforcement or regulatory actions of the Commodity Futures Trading Commission, please call the Small Business Liaison in the Office of General Counsel at (202) 418-5120. You may also wish to contact the Small Business and Agriculture Regulatory Enforcement Ombudsman, or one of the 10 Regional Fairness Boards, which were established by the Small Business Regulatory and Enforcement Fairness Act. The Ombudsman and Boards receive comments from small businesses about Federal agency enforcement actions. The Ombudsman will annually evaluate the enforcement activities and rate each agency's responsiveness to small business. If you wish to contact the Ombudsman to comment on the enforcement actions of the CFTC, please call1-888-REG-FAIR (1-888-734-3247).

[3] The Informal Procedure has been adopted as Appendix A to Part 11 of the Commission's Regulations, 17 C.F.R. § 11, Appendix A. Appendix A more fully sets forth the substantive and procedural provisions of the Informal Procedure.

TESTIMONY

The following information applies to individuals providing sworn testimony:

1. RECORD. Your testimony will be transcribed by a reporter. If at any time you wish to go off the record, please inform the Commission representative taking your testimony, and that representative will decide whether to grant your request. The reporter will go off the record only at the request of the Commission representative, and not at the direction of you or your counsel. The Commission representative may summarize all off-the-record discussions when you go back on the record.

2. COUNSEL. You may be accompanied, represented and advised by counsel. He or she must be an attorney-at-law admitted to practice before the highest court in any state or territory or the District of Columbia, who has not been suspended or disbarred from appearance and practice before the Commission. Your counsel may be present and may advise you before, during and after your testimony.[4]

   Counsel may also question you briefly at the conclusion of your testimony to clarify any answers, and may make summary notes during your testimony. You may consult with your counsel at any time during the proceedings. If you want to consult privately with counsel, inform the Commission representative taking your testimony and necessary arrangements will be made.

   If you are not accompanied by counsel and decide at any time during the proceeding that you wish to be accompanied, represented or advised by counsel, please so advise the Commission representative taking your testimony. The proceeding will then be adjourned to afford you the opportunity to make necessary arrangements.

   The Commission may for good cause exclude a particular attorney from further participation in any investigation in which the Commission has found the attorney to have engaged in dilatory, obstructionist or contumacious conduct.

   You may be represented by counsel who represents other persons involved in the Commission's investigation. This multiple representation, however, presents a potential conflict of interest if one client's interests are or may be adverse to another's. If you are represented by counsel who also represents other persons involved in the investigation, the Commission will assume that you and counsel have discussed and resolved all issues concerning possible conflicts of interest. The choice of counsel, and the responsibility for that choice, is yours.

---

[4] No one other than your attorney and persons providing assistance to your attorney necessary to ensure representation of counsel are entitled to accompany, represent or advise you at the proceeding.

3. PERJURY. Any person making false statements under oath during a Commission investigation is subject to the criminal penalties for perjury in 18 U.S.C. § 1621, which provides, in relevant part, that:

> Whoever ... having taken an oath before a competent tribunal, officer, or person, in any case in which a law of the United States authorizes an oath to be administered, that he will testify, declare, depose, or certify truly, ... willfully and contrary to such oath states or subscribes any material matter which he does not believe to be true ... is guilty of perjury and shall, except as otherwise expressly provided by law, be fined under [title 18] or imprisoned not more than five years, or both.

4. TRANSCRIPT AVAILABILITY. Under Commission Rule 11.7(b), 17 C.F.R. § 11.7(b), any person compelled to submit testimony in the course of an investigatory proceeding is entitled, upon payment of appropriate fees, to procure a copy or transcript of his or her testimony. For good cause, however, a witness may be limited to review of the official copy of his or testimony. The rights provided by this rule also apply to individuals testifying voluntarily.

   To request written authorization to purchase a copy of the transcript of your testimony, send a written request to the Commission representative taking your testimony. Whether or not you wish to purchase a copy of the transcript, a copy will be available for your review at the Commission office most convenient to you. To arrange for such review, contact the Commission representative taking your testimony.

5. FIFTH AMENDMENT. Information you provide may be used against you in any Federal, state, local or foreign administrative, civil or criminal proceeding brought by the Commission or any other agency. In accordance with the rights guaranteed to you by the Fifth Amendment to the Constitution of the United States, you may refuse to provide information that may tend to incriminate you or otherwise subject you to a fine, penalty or forfeiture, by invoking the Fifth Amendment. An adverse inference may be drawn in a civil or administrative proceeding from your refusal to testify.

6. FAILING TO ANSWER QUESTIONS.

   a. Testimony Pursuant to Subpoena. If testifying pursuant to a subpoena, your disclosure of information to the Commission is mandatory, subject to any legal right or privilege you may have. If you fail to provide requested information, the Commission may seek a court order requiring you to do so. If such an order is obtained, you may be subject to civil and/or criminal sanctions for contempt of court for any continued failure to supply the information.

   b. Voluntary Testimony. If your testimony is not pursuant to a subpoena, your appearance to testify is voluntary. Accordingly, you may leave the proceeding at any time, and you are not required to answer questions. There are no direct sanctions or effects for failing to supply all or part of the information requested by the Commission. If you do provide information, however, you should note the sanctions for false statements and documents described above.

7. FORMAL ORDER AVAILABILITY. If the Commission has issued a formal order of investigation, Commission Rule 11.7(a), 17 C.F.R. § 11.7(a), allows you to examine it at your request during your testimony. To obtain a copy of the formal order, however, you must submit a written request to the Commission representative taking your testimony and demonstrate that your retention of a copy of the formal order "would be consistent both with

the protection of privacy of persons involved in the investigation and with the unimpeded conduct of the investigation." Commission Rule 11.7(a), 17 C.F.R. § 11.7(a).

8. ALLOWABLE FEES AND EXPENSES. The Commission is neither required nor authorized to pay fees and mileage to the witness upon service of a subpoena. 7 U.S.C. §§ 9, 15; 28 U.S.C. § 1825(c); 31 U.S.C. § 3324(b); 17 C.F.R. § 11.4. However, after giving testimony pursuant to a subpoena, the witness may request of the Commission, and the Commission will pay, the same fees and mileage that are paid to witnesses in the courts of the United States. 17 C.F.R. § 11.4(d). *See also* 28 U.S.C. § 1821.[5]

a. Attendance Fees. You are entitled to the prevailing Federal witness fee for each day's attendance, including time needed to travel to and from the location of the proceeding.

b. Common Carrier Transportation. If traveling by common carrier, you will be paid the actual expenses of transportation between your residence and the location of the proceeding, using the shortest practical route and the most economical rate reasonably available. To ensure the lowest rate, contact the Business Manager, Division of Enforcement, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street, NW, Washington, D.C. 20581, for a prepaid travel ticket. Receipts must be submitted with all claims for transportation expenses. If you were supplied with a government-paid airline or train ticket, attach the receipt and/or stub to your claim.

c. Rental Cars. Reimbursement for the use of a rental car cannot be made unless authorized in advance by the Commission on a signed travel order. The Commission must determine whether use of a rental car is cost beneficial to the government.

d. Travel by Privately Owned Vehicle (POV). If traveling by POV, you are entitled to a mileage allowance based on a uniform table of distances at a rate established by the General Services Administration and published at 28 U.S.C. § 1821(c)(2). Travel by POV must be approved in writing by Commission staff as advantageous to the government.

e. Miscellaneous Travel Expenses. You are entitled to reimbursement for the following charges: toll charges on roads, bridges, tunnels and ferries; necessary taxicab fares between places of lodging and carrier terminals; and parking fees. You are not entitled to reimbursement for telephone expenses. Receipts must be submitted to obtain reimbursement for all permitted expenses.

f. Subsistence Expenses. You are entitled to reimbursement for subsistence expenses when the distance between the place of attendance and your residence precludes daily return travel. Subsistence allowances for witnesses are calculated and paid in the same manner as those paid to Federal employees. For information concerning the maximum daily allowance for reimbursement in your area, contact the Business Manager, Division of Enforcement, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street, NW, Washington, D.C. 20581. Receipts must be submitted for lodging expenses and all individual expenditures.

[5] The exact amount of the prevailing attendance fee, mileage allowance, and subsistence allowance for Federal witnesses is published at 28 U.S.C. § 1821.

g. Reimbursement. To receive reimbursement for allowable witness fees and expenses, you must complete and return a reimbursement claim form to the Commission within 60 days of the date of your appearance. The claim must include the departure time from your residence and the time you returned to your residence after presenting testimony. In order to receive reimbursement, all receipts specified above must be submitted with the claim. To obtain a reimbursement claim form, contact the Commission representative taking your testimony.

If you do not want to receive any reimbursement for fees and expenses, please:

(1) print your name in Part I of the reimbursement claim (address is not necessary);
(2) complete Part II, Line 7 with "0";
(3) sign and date Line 9; and
(4) return claim.

If you received a government-paid airline or train ticket, please attach the receipt or stub to the claim.

h. Travel Order. In order to ensure that you will be reimbursed for your expenses, it is in your best interest to secure a signed copy of the travel order from the Business Manager, Division of Enforcement, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street, NW, Washington, D.C. 20581, prior to testifying, if feasible. The travel order specifies all expenses which have been authorized, including, for example, travel by POV or rental car.

EXHIBIT I.D.
2
4.2.13MM
PENGAD 800-631-6989

IDCH FUT Daily EOD Report
NewEdge USA LLC
14-Jul-2011

IDCH

International Derivatives Clearinghouse, LLC
150 East 52nd Street, 5th Floor
New York, New York 10022

Report Date: 7/14/2011
Trading Date: 7/14/2011

Summary Report

Clearing Account: NewEdge USA LLC - [redacted]

IE_NEWED_CUSMAR

	14-Jul-2011	13-Jul-2011
Collateral	$6,612,322.75	$6,612,322.75
Intra-Contract Margin Charge	$-	$-
Initial Margin	$6,607,000.00	$6,607,000.00
Daily Variation	$(192,874.71)	$458,030.10
Coupon	$-	$-
Close Out	$-	$-
MTM	$(6,369,849.47)	$(6,176,974.76)
Total IM Requirement:	**$6,607,000.00**	**$6,607,000.00**
Net Cash Movement:	**$(192,874.71)**	**$458,030.10**

NewEdge USA LLC
NOTE: All dollar amounts are from the Clearinghouse's perspective
All Information Proprietary and Confidential

Trade Date: 7/14/2011

Confidential Treatment Requested by IDCG

IDCH

International Derivatives Clearinghouse, LLC
150 East 52nd Street, 5th Floor
New York, New York 10022

Report Date: 7/14/2011
Trading Date: 7/14/2011

Top Day Trade Report

Clearing Account: [redacted]

- Top Day Trade Activity

IDCH

national Derivatives Clearinghouse, LLC
East 52nd Street, 5th Floor
York, New York 10022

Report Date: 7/14/2011
Trading Date: 7/14/2011

Position Report

Clearing Account: [redacted] - NewEdge USA LLC

DRW02 - DRW Investments, LLC

EURODOLL - DRW Euro$ (Account Alias: [redacted]

OPEN POSITIONS

Trade #	ExternalId	Series	EffDate	ExpDate	Side	Notional	Rate	DailyAccrInt	AccrInt	NPV	CouponDue	ClsTrd#
1974	IRD20120817		2010-08-17	2012-08-17	P	$5,000,000	0.73000	$65.21	$12,805.69	$27,873.38	$-	
1980	IRD20120818		2010-08-18	2012-08-18	R	$5,000,000	0.70750	$(62.08)	$(12,284.24)	$(26,178.99)	$-	
2018	IRD20110826		2010-08-26	2011-08-26	P	$25,000,000	0.41000	$107.64	$30,045.14	$34,380.93	$-	
2095	IRD20200915		2010-09-15	2020-09-15	P	$50,000,000	2.73400	$3,454.17	$441,920.83	$(1,175,580.27)	$-	
2103	IRD20400916		2010-09-16	2040-09-16	P	$25,000,000	3.44000	$2,218.56	$277,120.14	$(4,566,769.33)	$-	
2127	IRD20400922		2010-09-22	2040-09-22	P	$50,000,000	3.54200	$4,577.08	$543,445.83	$(8,287,741.93)	$-	
2134	IRD20400923		2010-09-23	2040-09-23	P	$50,000,000	3.50100	$4,521.53	$532,577.08	$(8,645,488.37)	$-	
2142	IRD20200924		2010-09-24	2020-09-24	P	$50,000,000	2.59400	$3,261.81	$389,486.11	$(1,830,871.91)	$-	
2170	IRD20200930		2010-09-30	2020-09-30	P	$100,000,000	2.50000	$6,261.81	$712,665.28	$(4,540,671.95)	$-	

DRW Euro$ Subtotal: Open NPV: $(29,011,048.44) Terminated NPV: Coupon Due: $0.00

DRW02 Subtotal: Open NPV: $(29,011,048.44) Terminated NPV: Coupon Due: $0.00

FPR02 - FPCM Inflation-Linked Opp. Fund

BOOK1 - NEWED FPR Book1 (Account Alias: [redacted])

OPEN POSITIONS

Trade #	ExternalId	Series	EffDate	ExpDate	Side	Notional	Rate	DailyAccrInt	AccrInt	NPV	CouponDue	ClsTrd#
1872	IRD20160720		2010-07-20	2016-07-20	P	$6,000,000	2.20000	$321.00	$59,918.33	$157,839.38	$-	
2017	IRD20110826		2010-08-26	2011-08-26	R	$25,000,000	0.41000	$(107.64)	$(30,045.14)	$(34,380.93)	$-	

NEWED FPR Book1 Subtotal: Open NPV: $123,458.46 Terminated NPV: Coupon Due: $0.00

FPR02 Subtotal: Open NPV: $123,458.46 Terminated NPV: Coupon Due: $0.00

JEF02 - Jefferies & Company, Inc.

BOOK1 - NEWED JEF Book1 (Account Alias: [redacted])

OPEN POSITIONS

Trade #	ExternalId	Series	EffDate	ExpDate	Side	Notional	Rate	DailyAccrInt	AccrInt	NPV	CouponDue	ClsTrd#
1871	IRD20160720		2010-07-20	2016-07-20	R	$6,000,000	2.20000	$(321.00)	$(59,918.33)	$(157,839.38)	$-	
2094	IRD20200915		2010-09-15	2020-09-15	R	$50,000,000	2.73400	$(3,454.17)	$(441,920.83)	$1,175,580.27	$-	

Clearing Account [redacted] - NewEdge USA LLC

JEF02 - Jefferies & Company, Inc.

BOOK1 - NEWED JEF Book1 (Account Alias: [redacted])

OPEN POSITIONS

Trade #	ExternalId	Series	EffDate	ExpDate	Side	Notional	Rate	DailyAccrInt	AccrInt	NPV	CouponDue	ClsTrd#
2102		IRD20400916	2010-09-16	2040-09-16	R	$25,000,000	3.44000	$(2,218.58)	$(277,120.14)	$4,566,769.33	$-	
2126		IRD20400922	2010-09-22	2040-09-22	R	$50,000,000	3.54200	$(4,577.08)	$(543,445.83)	$8,287,741.93	$-	
2133		IRD20400923	2010-09-23	2040-09-23	R	$50,000,000	3.50100	$(4,521.53)	$(532,577.08)	$8,645,488.37	$-	

NEWED JEF Book1 Subtotal:	Open NPV:	$22,517,740.51	Terminated NPV:		Coupon Due:	$0.00
JEF02 Subtotal:	Open NPV:	$22,517,740.51	Terminated NPV:		Coupon Due:	$0.00
IE_NEWED_CUSMAR Total:	**Open NPV:**	**$(6,369,849.47)**	**Terminated NPV:**		**Coupon Due:**	**$0.00**

NewEdge USA LLC
NOTE: All dollar amounts are from the Clearinghouse's perspective
All Information Proprietary and Confidential

Trade Date: 7/14/2011

Confidential Treatment Requested by IDCG

IDCH

International Derivatives Clearinghouse, LLC
150 East 52nd Street, 5th Floor
New York, New York 10022

Report Date: 7/14/2011
Trading Date: 7/14/2011

IDCH Curve

	RATE
USD_3M_SWAP_FUT_1YR	0.434
USD_3M_SWAP_FUT_18M	0.549
USD_3M_SWAP_FUT_2YR	0.630
USD_3M_SWAP_FUT_3YR	0.997
USD_3M_SWAP_FUT_4YR	1.438
USD_3M_SWAP_FUT_5YR	1.865
USD_3M_SWAP_FUT_6YR	2.244
USD_3M_SWAP_FUT_7YR	2.563
USD_3M_SWAP_FUT_8YR	2.849
USD_3M_SWAP_FUT_9YR	3.094
USD_3M_SWAP_FUT_10YR	3.303
USD_3M_SWAP_FUT_12YR	3.610
USD_3M_SWAP_FUT_15YR	3.932
USD_3M_SWAP_FUT_20YR	4.238
USD_3M_SWAP_FUT_25YR	4.446
USD_3M_SWAP_FUT_30YR	4.613

EXHIBIT I.D.
3
4.2.13 MM
PENGAD 800-631-6989

Rules

of

International Derivatives Clearinghouse, LLC

As of September 1, 2010

Position Accountability: A person owning or controlling more than 3,000 contracts net long or net short in all contract maturities combined shall provide, in a timely fashion, upon request by the Participating Trading Facility, information regarding the nature of the position, trading strategy, and hedging information, if applicable.

Large Trader Reporting: Pursuant to Commission Regulation Section 15.03 and Part 17 of the Commission's Regulation, the position level that is required to be reported to the Participating Trading Facility and Commission is any open position in a particular IDEX USD 1 Month Interest Rate Swap Futures Contract at the close of trading on any trading day equal to or in excess of twenty-five on either side of the market.

Designated Contract Market: The NASDAQ OMX Futures Exchange (NFX).

Rule 1002.IDEX USD 3 Month Interest Rate Swap Futures Contract

(a) Description.

Underlying. IDEX USD 3 Month Interest Rate Swap Futures Contracts are futures on United States dollar-denominated interest rate swaps with a notional value of $100,000, requiring the exchange of periodic payments of semi-annual fixed rate payments based on the futures price in exchange for quarterly floating-rate payments based on the 3-month US Dollar London Interbank Offered Rate (the "USD LIBOR").

Payment Schedule. Periodic payments on the IDEX USD 3 Month Interest Rate Swap Futures Contract will be made on a quarterly basis for the floating rate payments, and on a semi-annual basis for the fixed rate payments. Each payment date in the IDEX USD 3 Month Interest Rate Swap Futures Contract will be defined by the Effective Date, the Maturity Date, and the payment frequency of the fixed or floating side as appropriate, adjusted by the Modified Following Business Day convention for New York and London.

The Effective Date (start of first accrual period) shall be 2 Week Days after the execution date of any individual IDEX USD 3 Month Interest Rate Swap Futures Contract, adjusted by the Following Business Day convention for New York.

The Maturity Date shall be the final payment date unadjusted by any Business Day convention of the IDEX USD 3 Month Interest Rate Swap Futures Contract and shall be established by the Participating Trading Facility on the listing date.

The Reset Date shall be 2 London Business Days preceding the start of the floating interest accrual period. The only exception to this is the first floating interest accrual period where the Reset Date will be the execution date unless this is not a good London Business Day in which case the Reset Date will be the first good London Business Day preceding the listing date.

The Start Date of the nth interest accrual period is the Effective Date for the series plus (n-1)* payment frequency of the fixed or floating side as appropriate, adjusted by the Modified Following Business Day convention for New York and London.

The End Date of the nth interest accrual period is the Effective Date for the series plus n* payment frequency of the fixed or floating side as appropriate, adjusted by the Modified Following business day convention for New York and London.

The Interest Payment Date of the nth interest period is the End Date of the same interest accrual period.

For purposes of this rule, the following conventions determine how non-business days are treated:

(i) "Following" means the date will be adjusted to be the first following day that is a Business Day in the locations listed;

(ii) "Modified Following" means the date will be adjusted to be the first following day that is a Business Day in the locations listed unless that day falls in the next calendar month, in which case that date will be the first preceding day that is a Business Day in the locations listed;

(iii) "Preceding" means the date will be adjusted to the first preceding day that is a Business Day in the locations listed;

(iv) "Business Day" means a day in which the banking system is open to settle payments in the locations listed; and

(v) "Week Day" means any calendar day which is not a Saturday or Sunday

Floating Rate Payment. The floating rate payment for a given accrual period shall be an amount equal to the Notional Value multiplied by the USD LIBOR setting multiplied by the actual number of days in the accrual period, divided by 360.

Fixed Rate Payment. The fixed rate payment for a given accrual period shall be equal to the notional value multiplied by the fixed rate multiplied by the number of days in the interest period in respect of which payment is being made divided by 360, calculated on a formula basis as follows;

$$\{[360 \times (Y2-Y1)] + [30 \times (M2-M1)] + (D2-D1)\}/360$$

Where:

Y1 is the year, expressed as a number, in which the start date of the interest period falls

Y2 is the year, expressed as a number, in which the end date of the interest period falls

M1 is the calendar month, expressed as a number, in which the start date of the interest period falls

M2 is the calendar month, expressed as a number, in which the end date of the interest period falls

D1 is the first calendar day expressed as a number, of the interest period, unless such a number would be 31, in which case D1 will be 30.

D2 is the last calendar day, expressed as a number, of the interest period, unless such a number would be 31 and D1 is greater than 29, in which case D2 will be 30.

(b) *Schedule*. The Participating Trading Facility at any given time may list for trading IDEX USD 3 Month Interest Rate Swap Futures Contracts having maturities from one day to thirty years (with one year comprising 365 days, or 366 days for leap years), with one maturity of IDEX USD 3 Month Interest Rate Swap Futures Contract maturing on every calendar day. The maturity of each individual IDEX USD 3 Month Interest Rate Swap Futures Contract shall be established by the Participating Trading Facility on the date each such contract is listed by the Participating Trading Facility.

(c) *Minimum Increments*. The price of the IDEX USD 3 Month Interest Rate Swap Futures Contract is the price of the fixed leg portion of the swap. Minimum price intervals are expressed in terms of the interest rate on the fixed rate portion of the IDEX USD 3 Month Interest Rate Swap Futures Contracts. The minimum price interval is .001 for Contracts traded on the IDEX XT trading system and .00001 for Contracts established by means of EFS through the SwapDrop Portal.

(d) *Last Trading Day*. Trading of any individual IDEX USD 3 Month Interest Rate Swap Futures Contract terminates at the close of trading on the Business Day preceding that contract's Maturity Date. For purposes of this rule, a Business Day is any day on which the Participating Trading Facility is open for the trading of IDEX USD 3 Month Interest Rate Swap Futures Contracts.

(e) *Contract Modifications*. Specifications are fixed as of the first day of trading of a contract. If any U.S. government agency or body with authority issues an order, ruling, directive or law that conflicts with the requirements of these rules, such order, ruling, directive or law shall be construed to take precedence and become part of these rules, and all open and new contracts shall be subject to such government orders.

(f) *No-Break Range*. Pursuant to Rule F26 of the Participating Trading Facility, The "No Break Range" for any Contract shall be any price within a range bounded by the "fair market value" of such Contract at the time the transaction occurred plus or minus the market movement covered by one-third of the initial margin required for such Contract. For these purposes fair market value shall be determined by the Participating Trading Facility based on trading activity in the contract at the time of the dispute or by surveying at least three market participants not involved in the transaction in question.

(g) *Reportable Position*. Pursuant to Commission Regulation Section 15.03 and Part 17 of the Commission's Regulation, the position level that is required to be reported to the Participating Trading Facility and Commission is any open position in a particular IDEX USD 3 Month Interest Rate Swap Futures Contract at the close of trading on any trading day equal to or in excess of twenty-five on either side of the market.

Confidential Treatment Requested by IDCG

(h) *Position Accountability.* A person owning or controlling more than 3,000 contracts net long or net short in all contract maturities combined shall provide, in a timely fashion, upon request by the Participating Trading Facility, information regarding the nature of the position, trading strategy, and hedging information, if applicable.

(i) *Daily Settlement Price.* Each open position is valued by the Clearinghouse at the end of each trading day by valuing each leg of the cash flows of the contract (fixed and floating) according to discount factors generated by the IDEX Curve. Each Trading Day, the Daily Settlement Price shall be established by the Clearinghouse based upon the IDEX Curve that corresponds to the fixed rate portion of the swap. A net present value of the position will be determined and set as the Daily Settlement Price. Notwithstanding the preceding sentence, the Clearinghouse may, in its sole discretion, establish a Daily Settlement Price that is a fair and appropriate reflection of the market. The Final Settlement Price shall be the Daily Settlement Price on the Last Trading Day.

(j) *Final Settlement Date.* The Final Settlement Date shall be the Final Payment Date of each individual IDEX USD 3 Month Interest Rate Swap Futures Contract. Clearing Members holding open positions in a IDEX USD 3 Month Interest Rate Swap Futures Contract at the termination of trading in that Contract shall make payment to or receive payment from the Clearinghouse in accordance with normal variation and performance bond procedures based on the net of the Fixed and Floating Rate Interest payment of the last interest accrual period.

Rule 1003.IDEX USD 1 Month Forward Start Interest Rate Swap Futures Contracts

Description: IDEX USD 1 Month Forward Start Interest Rate Swap Futures Contracts are futures on United States dollar-denominated interest rate swaps with a notional value of $100,000 and a deferred Effective Date, requiring the exchange of periodic payments of semi-annual fixed rate payments based on the futures price in exchange for quarterly floating-rate payments based on the 1-month US Dollar London Interbank Offered Rate (the "USD LIBOR").

Ticker Symbols: Base Example = 1FSYYYYMMDDYNN. YYYYMMDD refers to the unadjusted Maturity Date of the series and YNN refers to contract duration in years.

Contract Listings: The Participating Trading Facility at any given time may list for trading IDEX USD 1 Month Forward Start Interest Rate Swap Futures Contracts having terms from one to twenty nine years and a Maturity Date no longer than thirty years (with one year comprising 365 days, or 366 days for leap years), with one maturity of the IDEX USD 1 Month Forward Start Swap Futures Contract maturing on every calendar day. The Effective Date and Maturity Date of each individual IDEX USD 1 Month Forward Start Interest Rate Swap Futures Contract shall be established by the Participating Trading Facility on the date each such contract is listed by the Participating Trading Facility. The Participating Trading Facility shall make known the listing of any contract on its website prior to the commencement of trading.

Trading Hours: 7:00 AM to 5:00 PM Eastern Time ("ET") Monday – Friday

From: Brian Vander Luitgaren <bvander@DRWHoldings.com>
Sent: Friday, July 23, 2010 5:23 PM
To: Samuel Stephenson <sstephenson@DRWHoldings.com>
Subject: Fwd: Cleared swaps

Fyi

Sent from my iPhone

EXHIBIT 10.4 4.2.13MM
PENGAD 800-631-6989

Begin forwarded message:

> **From:** "Donald Wilson" <DonaldWilson@DRWHoldings.com>
> **Date:** July 23, 2010 1:54:20 PM CDT
> **To:** <neal.brady@thirdstonepartners.com>, "Jeffrey Levoff" <JLF@DRWHoldings.com>, "Jennifer Wilson" <jwilson@DRWHoldings.com>, "Yuhua Yu" <yyu@DRWHoldings.com>, "Brian Vander Luitgaren" <bvander@DRWHoldings.com>, "Barry Mendeloff" <bmendeloff@DRWHoldings.com>, "Joe Meissner" <jmeissner@DRWHoldings.com>, <david.boberski@cmegroup.com>, "Kevin Kroeger" <kkroeger@DRWHoldings.com>
> **Subject: Cleared swaps**

We need to make a concerted effort to get these initiatives fully functional now. This is the beginning of what we have been talking about for years, but we need to get it right!!

I have asked Kevin Kroeger to help with overall coordination. Cleared swap priorities:

#1 priority is to agree on the daily settlement framework and off-market swap trading framework for Eris's existing contract spec. Goal is to have this agreed to and DOCUMENTED by Monday morning. Dave Boberski and Neal to take the lead, working with Yuhua, who is responsible for theoretical accuraccy, Sam for back-office logic, Barry and Joe Meissner and Brian Vander for practitioner's view. Kevin to help coordinate as needed. I will also be checking in. This includes ensuring we are comfortable with the derivation of the convexity biased curve, and our internal procedures for generating the curve.

#2 is to do an eris test trade as soon as newedge will let us. Vander and Sam are in charge of this.

DRW only: #3 priority is to finish the alternative contract specs. This is lead by Yuhua and Jeff Levoff. The others do not need to be involved in this. Goal is to file by a week from today. I will be available to help.

DRW only:#4 priority is to really understand idcg. Confirm the contract has full convexity bias (despite the fact they will force it to settle at non-convexity biased prices). Do a one-lot test trade next week etc. Vander is in charge of this, working with yuhua, barry, kevin.

#5 priority is to do a convexity bias writeup for the eris contract highlighting the issue and extent of it by the 6th of august. I am open to suggestions on who takes the lead on this.

I will try to be available, especially to help get #1 right by Monday.

US 20120047058A1

(19) United States
(12) Patent Application Publication
(10) Pub. No.: US 2012/0047058 A1
Wilson, JR. et al.
(43) Pub. Date: Feb. 23, 2012

(54) NON-BIASED, CENTRALLY-CLEARED FINANCIAL INSTRUMENT AND METHOD OF CLEARING AND SETTLING

(76) Inventors: **Donald R. Wilson, JR.**, Chicago, IL (US); **Yuhua Yu**, Chicago, IL (US)

(21) Appl. No.: **12/806,860**

(22) Filed: **Aug. 23, 2010**

Publication Classification

(51) **Int. Cl.**
G06Q 40/00 (2006.01)
G06Q 90/00 (2006.01)

(52) **U.S. Cl.** **705/37**; 705/500

(57) ABSTRACT

In accordance with the principles of the present invention, a non-biased, centrally-cleared financial instrument, and method of electronic clearing and settling such a financial instrument is provided. The non-biased, centrally-cleared financial instrument of the present invention is to be centrally cleared and can be traded or transacted either on or off an exchange or trading platform, whether traded as a future or other type of financial instrument. The non-biased, centrally-cleared financial instrument of the present invention has a terminal value such that the terminal value offsets co-movement of variation margin and investment return on the variation margin during the life of the financial instrument.

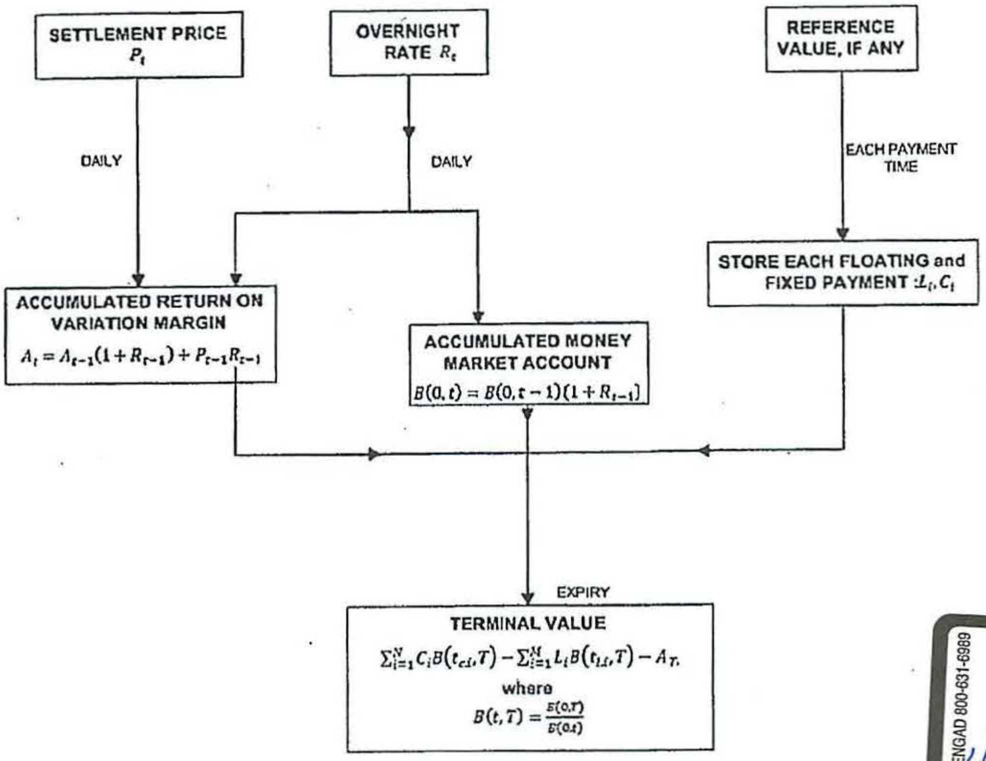
SETTLEMENT PRICE P_t
OVERNIGHT RATE R_t
REFERENCE VALUE, IF ANY
DAILY
DAILY
EACH PAYMENT TIME
ACCUMULATED RETURN ON VARIATION MARGIN
$A_t = A_{t-1}(1+R_{t-1}) + P_{t-1}R_{t-1}$
STORE EACH FLOATING and FIXED PAYMENT : L_i, C_i
ACCUMULATED MONEY MARKET ACCOUNT
$B(0,t) = B(0,t-1)(1+R_{t-1})$
EXPIRY
TERMINAL VALUE
$\sum_{i=1}^{N} C_i B(t_{c,i},T) - \sum_{i=1}^{M} L_i B(t_{l,i},T) - A_T,$
where
$B(t,T) = \frac{B(0,T)}{B(0,t)}$

EXHIBIT 10
PENGAD 800-631-6989
5
4.2.13 MM

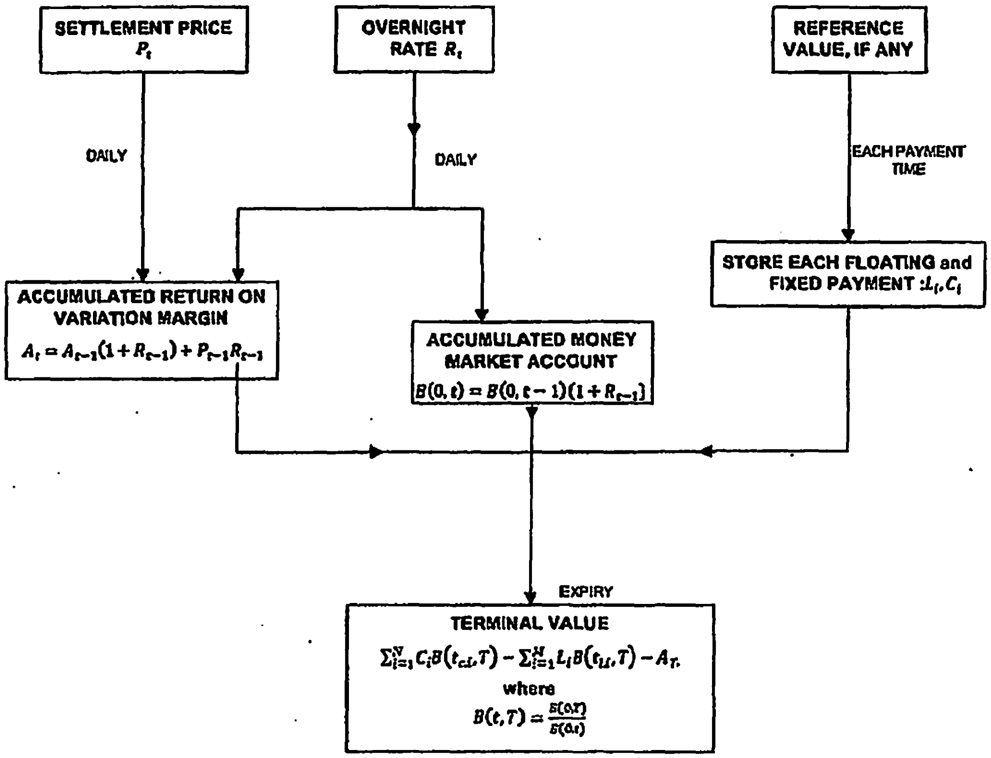
SETTLEMENT PRICE P_t
OVERNIGHT RATE R_t
REFERENCE VALUE, IF ANY
DAILY
DAILY
EACH PAYMENT TIME
STORE EACH FLOATING and FIXED PAYMENT : L_i, C_i
ACCUMULATED RETURN ON VARIATION MARGIN
$A_t = A_{t-1}(1 + R_{t-1}) + P_{t-1}R_{t-1}$
ACCUMULATED MONEY MARKET ACCOUNT
$B(0,t) = B(0,t-1)(1 + R_{t-1})$
EXPIRY
TERMINAL VALUE
$\sum_{i=1}^{N} C_i B(t_{ci}, T) - \sum_{i=1}^{M} L_i B(t_{li}, T) - A_T$,
where
$B(t,T) = \frac{B(0,T)}{B(0,t)}$

Figure 1

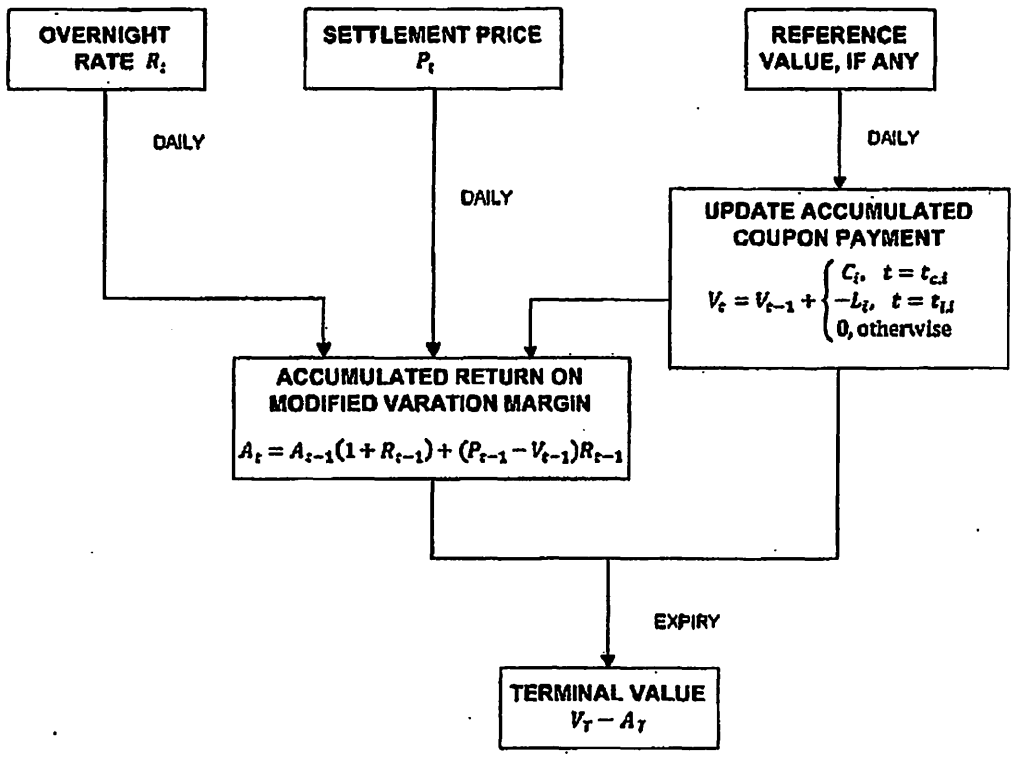
OVERNIGHT RATE R_t
SETTLEMENT PRICE P_t
REFERENCE VALUE, IF ANY
DAILY
DAILY
DAILY
UPDATE ACCUMULATED COUPON PAYMENT
$V_t = V_{t-1} + \begin{cases} C_i, & t = t_{c,i} \\ -L_i, & t = t_{l,i} \\ 0, & \text{otherwise} \end{cases}$
ACCUMULATED RETURN ON MODIFIED VARATION MARGIN
$A_t = A_{t-1}(1 + R_{t-1}) + (P_{t-1} - V_{t-1})R_{t-1}$
EXPIRY
TERMINAL VALUE
$V_T - A_T$

Figure 2

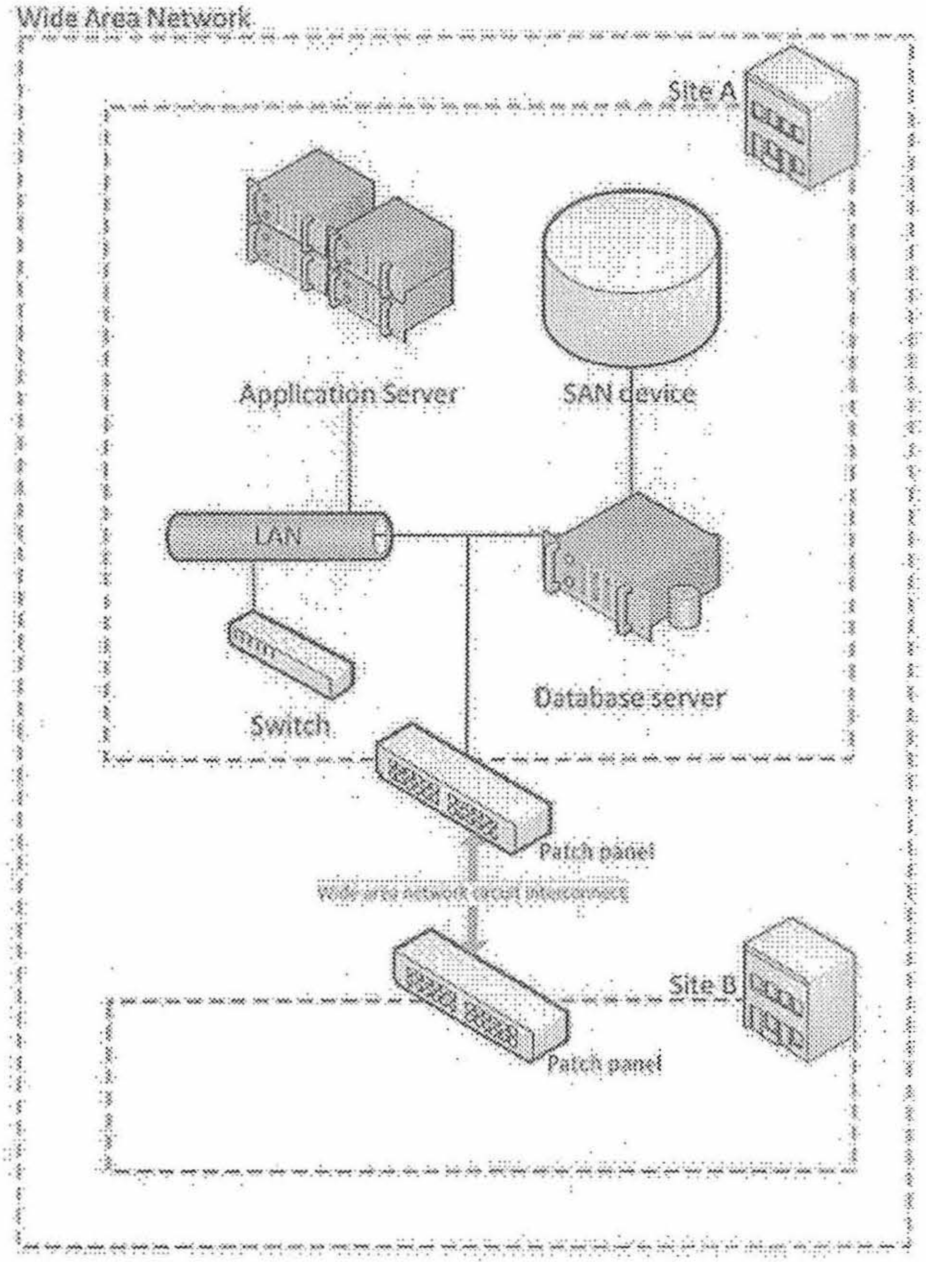
Wide Area Network
Site A
Application Server
SAN device
LAN
Switch
Database server
Patch panel
Site B
Patch panel

Figure 3